

Bloor Homes Limited

Land off Ermine Street, Huntingdon

Detailed Waste Management and Minimisation Plan – Phases A-I

3020007 CTR 040 (05)

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RSK GENERAL NOTES

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1 INTRODUCTION

1.1 Background

1.1.1 This Detailed Waste Management and Minimisation Plan (DWMMP) has been prepared by RSK on behalf of Bloor Homes Ltd for the phased development of up to 1,000 residential dwellings on the Land off Ermine Street, Huntingdon, Cambridgeshire ("the Site"). The Site Location Plan is shown at **Figure 1** and Planning Phasing Plan at **Figure 2**.

1.1.2 This DWMMP plan considers the potential overall impacts that may arise as part of the development from waste generated during site preparation, construction and operation phases, with an overall aim of developing a strategy for legislative compliance and good practice in the separation, storage, collection, treatment and/or disposal of waste arisings.

1.1.3 The report also outlines the opportunity for implementing waste mitigation measures for the potential impacts from the development, specifically site preparation (including any demolition) and construction, in order to assure such measures are consistent with both government and Local Authority waste policies and targets.

1.2 Summary of proposed development

1.2.1 A scheme is proposed to develop the site for residential use.

1.2.2 Once complete, the Proposed Development will comprise of up to 1,000 residential dwellings, with associated infrastructure and communal green space.

1.2.3 The total development area covers an area of approximately 50.2 hectares (ha), with residential development covering 9.7 ha.

1.2.4 Bloor Homes will complete the development in a phased approach covering phases A through to I, as shown in **Figure 2,** to which this report relates.

1.2.5 The purpose of this DWMMP is to assist the Applicant, Developer and Local Authority to manage and minimise the production of waste during site preparation, any required demolition of existing structures, construction of the proposed development and the subsequent operation of the site.

1.2.6 The DWMMP will satisfy Condition 34 of the Outline Planning Permission (reference: 18/01918/OUT):

34. Condition.

Prior to the commencement of development within each phase, a Detailed Waste Management and Minimisation Plan (DWMMP) for that phase shall be submitted to the Local Planning Authority. The DWMMP shall include details of:

a) Construction waste infrastructure including a construction material recycling facility to be in place during all phases of construction;

b) anticipated nature and volumes of waste and measures to ensure the maximisation of the reuse of waste;

c) measures and protocols to ensure effective segregation of waste at source including waste sorting, storage, recovery and recycling facilities to ensure the maximisation of waste materials both for use within and outside the site;

d) any other steps to ensure the minimisation of waste during construction;

e) the location and timing of provision of facilities pursuant to criteria a, b, c and d above;

f) proposed monitoring and timing of submission of monitoring reports;

g) the proposed timing of submission of a Waste Management Closure Report to demonstrate the effective implementation, management and monitoring of construction waste during the construction lifetime of the development;

h) a RECAP Waste Management Guide toolkit shall be completed, with supporting reference material;

i) proposals for the management of municipal waste generated during the occupation phase of the development, to include the design and provision of permanent facilities e.g. internal and external segregation and storage of recyclables, non-recyclables and compostable material, access to storage and collection points by users and waste collection vehicles.

The DWMMP shall be implemented in accordance with the approved details.

Reason: In the interests of maximising waste reuse and recycling opportunities and to comply with policy 14 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy 2021, the Recycling in Cambridgeshire and Peterborough (RECAP) Waste Design Guide 2012, the National Planning Policy for Waste 2014 and Guidance for Local Planning Authorities on Implementation Planning Requirements of the European Union Waste Framework Direction (2008/98/EC), Department for Communities and Local Government 2012.

This condition is required to be precommencement as it seeks to control the process of the development at all stages, and ensure that any operations on site are carried out in a way that minimises waste.

1.3 Assessment Aims

1.3.1 The aim of this DWMMP is to consider the key issues associated with the sustainable management of construction waste at the proposed development with particular reference to:

- Identifying opportunities to maximise the reduction, reuse, recycling and recovery of waste and thereby minimising disposal in line with Government policy.
- Identifying opportunities for waste segregation and the transfer of waste to appropriate processing facilities.

The report will also address the design and operation of the occupation phase municipal waste management provisions at a high-level, including the requirements of the Cambridgeshire County Council RECAP Waste Management Design Guide.

1.4 Methodology

1.4.1 The development of this DWMMP has involved a number of tasks including:

- A desk-top review to collate information relating to waste generation, collection, and disposal options.

- A review of Huntingdonshire District Council's and Cambridgeshire County Council's waste management requirements, as the local planning authorities, and any forthcoming policy changes for development in the area.
- A review of available and accessible planning and policy guidance.
- Identification of opportunities for waste minimisation, reuse and recycling during the site preparation (including demolition where required), and construction phase (including options for sustainable re-use and recycling of wastes such as Environmental Permit; Exemptions; the Contaminated Land: Applications in Real Environments Declaration of Waste Code of Practice (CL:AIRE DoWCoP) [for re-use of soils]; and Waste & Resources Action Programme (WRAP) Quality Protocol [for the reuse of demolition materials]).

Completion of the RECAP Waste Management Design Guide Toolkit.

1.5 Limitations

1.5.1 This report should be considered in the light of any changes in legislation, statutory requirement or industry practices that may have occurred subsequent to the date of issue.

The comments given in this report and the opinions expressed are based on the plans provided at the time and discussions with relevant parties. However, there may be conditions pertaining to the site that have not been disclosed by investigations and therefore could not be taken into account.

The comments given in this report are subject to RSK's 'Service Constraints' provided in **Appendix A**.

Figure 1: Site Location

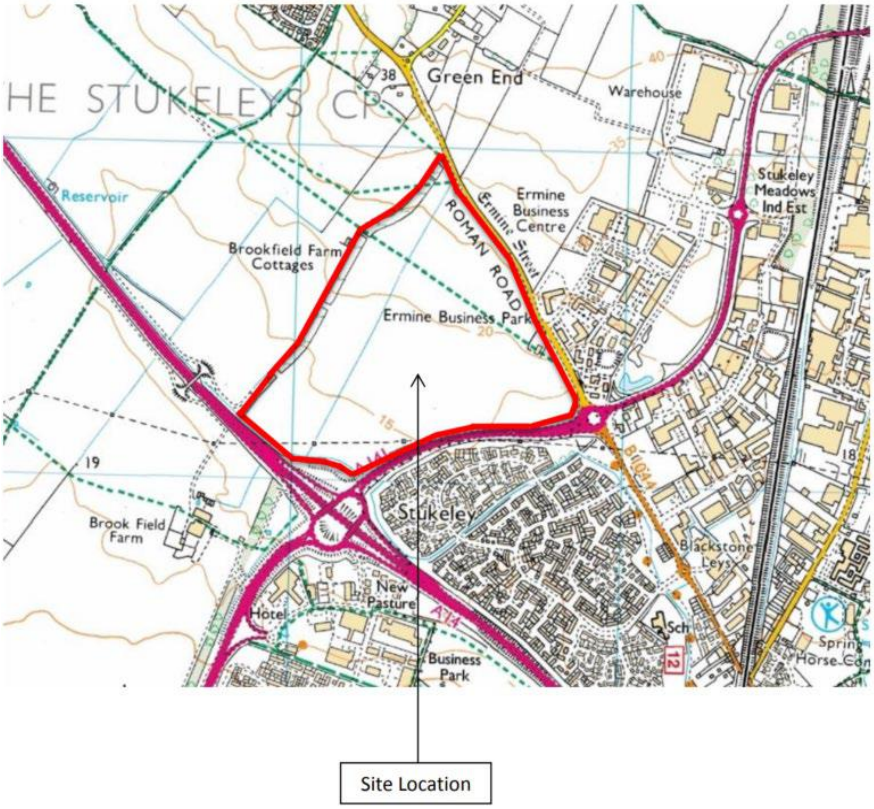
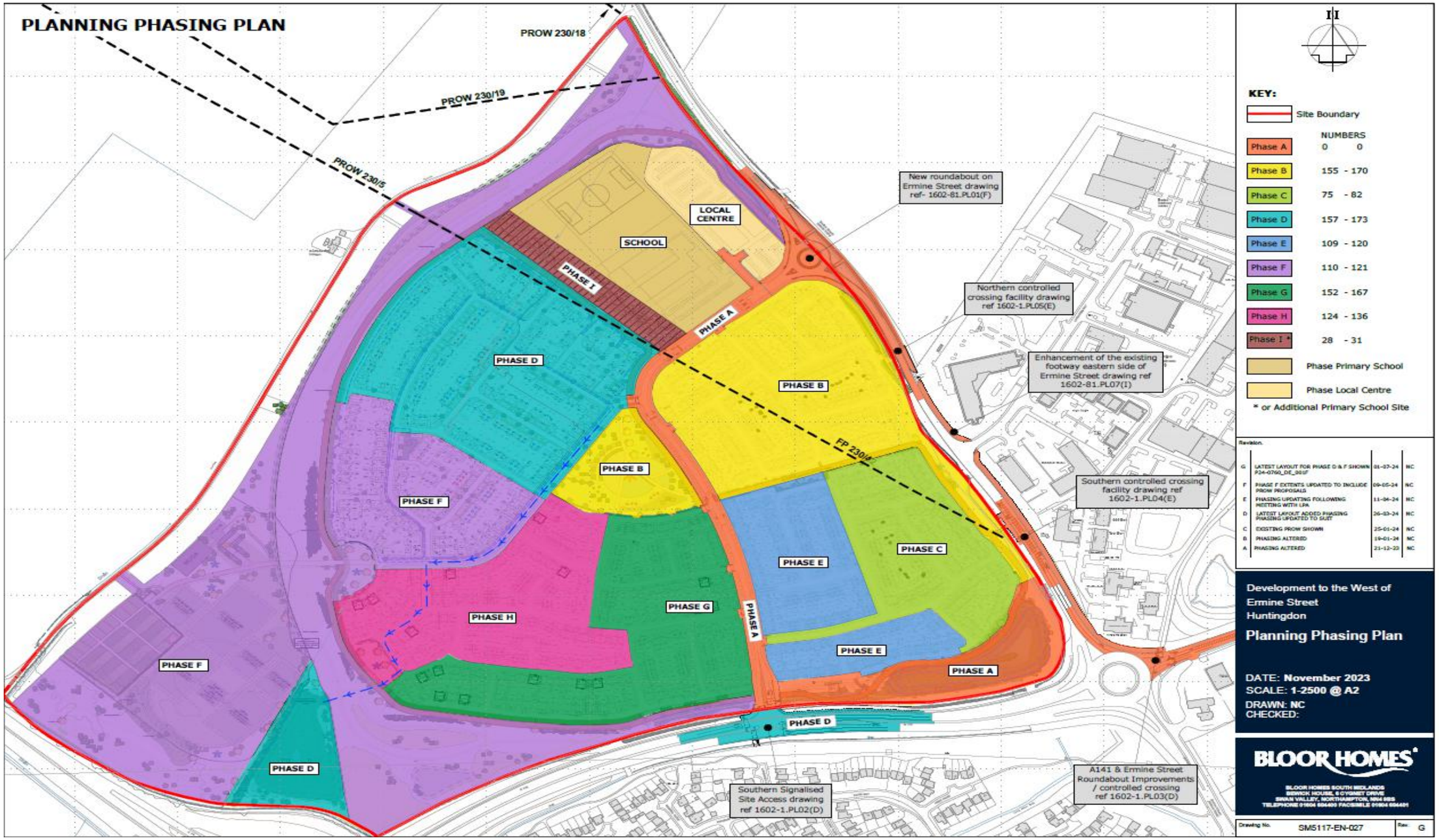


Figure 2: Planning Phasing Plan



2 WASTE LEGISLATION, POLICY AND GUIDANCE

2.1 Introduction

2.1.1 This section contains detail of the national legislation as well as regional and local waste policy and guidance that has relevance to this proposed development in the context of waste management.

2.2 National Legislation

Waste Framework Directive

2.2.1 The key European legislation is the revised Waste Framework Directive (2008/98/EC) ('rWFD'), which consolidates a number of separate waste Directives and amendments. It establishes the basis for the management of wastes across the European Union (EU). It defines certain terms, such as "waste", "recovery" and "disposal", to ensure that a uniform approach is taken across the EU. Following the UK's withdrawal from the EU, this directive still applies through the implementation of the European Union (Withdrawal) Act 2018 and the European Union (Withdrawal Agreement) Act 2020 (see **Section 2.2.6**).

Duty of Care

2.2.2 The waste Duty of Care is a legal requirement, originally implemented by Section 34 of the Environmental Protection Act 1990 and still applicable, to ensure that producers and holders handle their waste safely and in compliance with the appropriate regulations. One of the fundamental aspects of Duty of Care requires the holder of waste to make sure that anyone else dealing with their waste has the necessary authorisation to do so. If the holder does not do this and their waste is subsequently found to have been illegally disposed, the holder could be held responsible and may face prosecution. The Duty of Care provisions are contained in the Waste (England & Wales) Regulations 2011 SI 2011 No. 988.

The Waste Regulations

2.2.3 The Waste (England and Wales) Regulations 2011 SI 2011 No. 988, implement the rWFD in England and Wales. The waste hierarchy is set out at Article 4 of the rWFD. The waste hierarchy requires a demonstration by the producer/holder of a waste that the priority identified in **Table 1** has been considered in order to determine the most suitable waste management option for all waste arisings:

Table 1: The Waste Hierarchy (reproduced from DEFRA website)[1]

Waste Hierarchy	Relevant Activity
Prevention	using less material in design and manufacture, keeping products for longer, re-use, using less hazardous materials.
Preparing for re-use	the waste is capable of being recycled by existing local or regional waste management facilities without requiring adaptation.
Recycling	turning waste into a new substance or product, includes composting if it meets quality protocols.
Other recovery	includes anaerobic digestion, incineration with energy recovery, gasification and pyrolysis which produce energy (fuels, heat, and power) and materials from waste, some backfilling.
Disposal	landfill and incineration without energy recovery.

2.2.4 It is a legal requirement for waste producers/holders to follow the waste hierarchy when making decisions about waste management options for waste. Waste holders must choose the highest possible hierarchical option for their wastes. Lower hierarchical options cannot be justified by cost alone. They require environmental justification over available higher options, for example the location of a site may justify sending waste to a lower option (e.g. local landfill), rather than sending it hundreds of miles to the nearest facility that could provide a higher option.

Hazardous Waste Regulations

2.2.5 The Hazardous Waste Regulations (HWR) provides the rules for assessing if a waste is hazardous or not as set out under the EU List of Wastes Decision 2000/532/EC. As part of the assessment of waste, Hazardous wastes are identified in the European Waste Catalogue (EWC) by an asterisk (*). Some types are classed as hazardous outright (known as absolute entries in the EWC), others require separate assessment dependent upon the concentration of dangerous substances present above threshold concentrations (known as mirror entries in the EWC). The HWR refer to the List of Wastes for the relevant thresholds for some of the hazardous properties; and to assign the formal description and code for the waste. The regulatory framework to do this is contained in:

- Hazardous Waste (England and Wales) Regulations 2005 SI 894.
- Hazardous Waste (England and Wales) (Amendment) Regulations 2009 SI 507.
- Hazardous Waste (Miscellaneous Amendments) Regulations SI 2015/1360.
- Hazardous Waste (England and Wales) (Amendment) Regulations 2016 (SI 2016/336).

Following the UK withdrawal from the EU, the implementation of the European Union (Withdrawal) Act 2018 and the European Union (Withdrawal Agreement) Act 2020 (see **Section 2.2.6**). means that this legislation is currently unaffected.

European Union (Withdrawal) Act 2018 and European Union (Withdrawal Agreement) Act 2020

2.2.6 On 31 December 2020 the effect of the European Communities Act 1972 (ECA 1972) ceased and no longer serves as a conduit through which the EU can directly

[1] https://www.gov.uk/government/publications/guidance-on-applying-the-waste-hierarchy

affect UK legislation. The European Union (Withdrawal) Act 2018 and European Union (Withdrawal Agreement) Act 2020 provide a framework to ensure the legal position that existed before 31 December 2020 will continue to be preserved by retaining EU law that applies to the UK at that point and bringing it within the UK's domestic legal framework as a new category of law – Retained EU Law. The acts also provide the government with the necessary powers to amend or disapply Retained EU Law where it is considered appropriate.

Environment Act 2021

2.2.7 This legislation was passed in November 2021 to provide a new framework for the UK to protect and enhance its natural environment for future generations. The Act aims to improve the UK's air quality, restore natural habitats, increase biodiversity, reduce waste and promote better use of resources. In respect of waste, the Act has far-reaching implications to the way in which waste is dealt with including the UKs transition to a more circular economy by incentivising people to recycle more; encouraging businesses to create sustainable packaging; making household recycling easier and stopping the export of polluting plastics to developing countries. The Act contains several provisions relating to waste which both waste collection and waste disposal authorities are required to consider including:

- Recyclable household waste must be collected separately from other household waste, for recycling or composting. The Secretary of State has discretion to add further recyclable waste streams.
- Recyclable household waste must be collected as individual streams unless certain exceptions apply. To rely on these exceptions, a waste collection authority must provide a written assessment stating it considers that separate collection:
  - Would not be technically or economically practicable; or
  - Has no significant environmental benefit.
- Dry recyclable waste streams must never be mixed with food or garden waste streams; and
- Food waste collection must take place at least once a week.

It should also be noted that these requirements are applicable to commercial waste and industrial waste collections.

2.3 National Waste Policy and Guidance

National Planning Policy Framework 2024

2.3.1 An update to the National Planning Policy Framework (NPPF) has been published in December 2024 to replace the previous version published in December 2023. It sets out the Government planning policies for England and how these are expected to be applied. This NPPF also supersedes the previous NPPF published in September 2023, July 2021, February 2019, July 2018 and March 2012.

2.3.2 Planning law requires that applications for planning permission be determined in accordance with the development plan unless material considerations indicate otherwise.

The National Planning Policy Framework must be taken into account in preparing the development plan and is a material consideration in planning decisions.

2.3.3 The revised NPPF maintains that plans and decisions should apply a presumption in favour of sustainable development, emphasising a balanced approach to economic growth, social well-being, and environmental protection. The revised framework places strong emphasis on tackling climate change by encouraging development that minimises carbon emissions and promotes renewable energy initiatives. The revised NPPF aims to enable local people and their local authorities to produce their own distinctive local and neighbourhood development plans, which should be interpreted and applied to meet the needs and priorities of their communities.

2.3.4 The environmental objective refers to the importance of waste management and resource efficiency, considering this alongside other planning concerns like housing and transport. Waste reduction, reuse, and recycling through the waste hierarchy should be considered, ensuring new developments incorporate proper waste storage and collection facilities to facilitate effective waste management practices whilst considering local community engagement The NPPF should be read in conjunction with the National Planning Policy for Waste (2014) including the Waste Management Plan for England (2021) and Planning Practice Guidance which are discussed in the following sections of this plan.

Planning Practice Guidance 2024

2.3.5 The Planning Practice Guidance (PPG) comprises a web-based resource in support of the NPPF. The document referring to waste details the consideration local planning authorities should give towards waste management, both within Local Plans and with regards to the Waste Hierarchy. This includes guidance on considerations to be included within development planning applications:

- The promotion of the “sound management of waste from any proposed development, such as encouraging internal management of waste where this is appropriate, or including a planning condition to encourage or require the developer to set out how waste arising from the development is to be dealt with”.
- “Ensuring that collections of household and similar waste are organised so as to help towards achieving the higher levels of the Waste Hierarchy”.
- That steps are “taken to ensure effective segregation of wastes at source including, as appropriate, the provision of waste sorting, storage, recovery and recycling facilities”.

That it will be useful for proposals that are likely to generate significant volumes of waste through the development or operational phases to include a waste audit. “This audit should demonstrate that in both construction and operational phases of a proposed development, waste will be minimised as far as possible and that such waste as is generated will be managed in an appropriate manner in accordance with the Waste Hierarchy”.

Resources and Waste Strategy for England 2018

2.3.6 Defra has published a waste and resources strategy for England. The strategy sets out the government’s plan to double resource productivity and eliminate avoidable waste of all kinds, including plastic by 2050. The government’s 25-year environment plan published in

2018 pledges to leave the environment in a better condition for the next generation. The Resources and Waste Strategy is a key part of this commitment.

Government Review of Waste Policy in England 2011

2.3.7 DEFRA conducted a review of the existing national waste policy in 2011 to set a direction towards a 'Zero Waste Economy'. This included promising increased focus on business waste from the present trend of setting policies for household waste (which at the time represented only 9% of the overall arisings, compared to 24% for commercial and industrial waste).

2.3.8 In 2009, 47.9 million tonnes (Mt) of waste were generated by businesses. The industrial sector accounted for 24.1 Mt and the commercial sector 23.8 Mt. Estimates show that 52% of Construction and Industry (C&I) waste was recycled or re-used and 24% was sent to landfill. In terms of the total amount of packaging waste produced, half becomes waste in the commercial and industrial sector, which represents about 1/10 of all commercial and industrial waste arisings. The 2010 Defra survey of Commercial and Industrial Waste Arisings revealed an overall recycling rate (including re-use) of 52%, up from 42% in 2002/03, compared to a household waste recycling of 40% today, up from 11% in 2000/01.

National Planning Policy for Waste 2014

2.3.9 The updated policy maintains the core principles of the 'plan led' approach, with a continued focus of moving waste up the waste hierarchy. The policy states that new, non-waste developments must make sufficient provision for waste management and promote good design; include provision of waste storage facilities at residential premises; and the waste arising from the construction and operation of new development should be managed to maximise reuse/recovery opportunities and minimise off-site disposal.

Waste Management Plan for England 2021

2.3.10 DEFRA published a Waste Management Plan for England in January 2021. The plan aims to aid in embedding sustainable thinking around waste management and bring about a real change in how we consume resources.

2.3.11 The Waste Management Plan for England focuses on waste arisings and their management. It is a high-level, non-site-specific document. It provides an analysis of the current waste management situation in England and evaluates how the Plan will support implementation of the objectives and provisions of the Waste (England and Wales) Regulations 2011. The Waste Management Plan includes the measures to be taken so that, by 2035:

- The preparing for re-use and the recycling of municipal waste is increased to a minimum of 65% by weight.
- The amount of municipal waste landfilled is reduced to 10% or less of the total amount of municipal waste generated (by weight).

CL:AIRE DoW CoP

2.3.12 The definition of waste and subsequent re-use of materials can often be a complex area. The CL:AIRE DoWCoP provides a framework that can be followed when reusing excavated soils and source segregated aggregate on the site of production, including:

- Soil, both topsoil and sub-soil, parent material and underlying geology.
- Soil and mineral based dredgings.

- Ground based infrastructure that is capable of reuse within earthworks projects, e.g. road base, concrete floors.
- Made ground.
- Source segregated aggregate material arising from demolition activities, such as crushed brick and concrete, to be reused on the site of production within earthworks projects or as sub-base or drainage materials.
- Stockpiled excavated materials that include the above.

2.3.13 A Materials Management Plan (MMP) must be developed to manage arisings from excavations and services as per the CL:AIRE DoW CoP. The MMP should include:

- A description of the materials in terms of chemical and physical quality, potential reuse options and relative quantities.
- Details of where and how these materials will be stored.
- Details of the intended final destination and use of these materials.
- Details of how these materials are to be tracked and moved.

2.4 Regional and Local Waste Policy

Huntingdonshire Local Plan (adopted September 2018)[2]

2.4.1 The Local Plan is meant to strike the right balance between growth and conservation. It sets the levels of employment and housing development that should be provided over the plan period to best meet the needs of the area and establish a clear strategy for meeting development needs in the most sustainable way that protects the quality of life of existing and future residents.

2.4.2 The Local Plan sets a strong framework for new development to meet the needs of the area and provide a clear statement for local residents, businesses, service providers and the development industry of what they can expect to happen in terms of change in the built and natural environment over the next couple of decades.

Policy CC/6: Construction Methods

1. *Development which by its nature or extent is likely to have some adverse impact on the local environment and amenity during construction and/or generate construction waste must:*

a. *Carefully manage materials already on-site (including soils), or brought to the site, to reduce the amount of waste produced and maximise the reuse or recycling of materials either onsite or locally. Any construction spoil reused within the development should take account of the landscape character and avoid the creation of features alien to the topography.*

b. *Ensure that constructors are considerate to neighbouring occupiers by restricting the hours of noisy operations and by locating storage compounds and using plant or machinery to avoid noise, smells, dust, visual or other adverse impacts.*

[2] https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/the-adopted-development-plan/south-cambridgeshire-local-plan-2018

Policy HQ/1:Design Principles

1. *All new development must be of high-quality design, with a clear vision as to the positive contribution the development will make to its local and wider context. As appropriate to the scale and nature of the development, proposals must:*

   i) *Provide safe, secure, convenient and accessible provision for cycle parking and storage, facilities for waste management, recycling and collection in a manner that is appropriately integrated within the overall development.*

RECAP Waste Management Design Guide Supplementary Planning Document[3]

2.4.3 Cambridge County Council adopted the RECAP Waste Management Design Guidance Supplementary Planning Document on 22 February 2012. As part of this, the Cambridgeshire and Peterborough Minerals and Waste Core Strategy requires developers to provide waste storage, collection and recycling in line with the RECAP Waste Management Design Guide.

2.4.4 Developers are required to contribute to the provision of waste management infrastructure including waste storage containers and Household Recycling Centres and Bring Sites within Cambridgeshire and Peterborough.

2.4.5 The RECAP guidance provides advice on the design and provision of waste management infrastructure including:

- Internal/external storage capacity - the space required within homes. Also, for the storage of bins for both residential and commercial developments.
- Location of waste storage - issues in relation to the location of bins.
- Waste storage infrastructure - a minimum specification for the storage of waste.
- Highway design - ensuring that waste collection vehicles can serve new developments effectively.
- Extra waste management measures - added measures for the effective management of waste.
- Developer contributions - how developers will contribute to the waste infrastructure including:
  - Waste storage containers.
  - Household Recycling Centres and Bring Sites.

[3] https://www.cambridgeshire.gov.uk/business/planning-and-development/planning-policy/recap-waste-management-design-guide

3 PROJECT PLANNING AND DESIGN STAGE

3.1 Introduction

3.1.1 The following section outlines how effective waste management will be considered during the design stage of the project.

3.2 Designing Out Waste

3.2.1 The type and quantity of waste generated on the development will be significantly influenced at the design stage. By making design decisions at this stage the generation of waste can be prevented and minimised in the first place.

3.2.2 Decisions at this stage can also positively improve the recycled content and future recyclability of the development.

3.2.3 Design teams and Project Managers will be required to:

- Understand the waste streams that are produced on site.
- Understand how materials will be reused and recycled.
- Review at key stages how the design and specification are impacting upon waste management and identify any opportunities for improvement.

3.2.4 At the detailed design stage, in order to minimise waste, the following will be considered as a minimum:

- The design of the development will aim to utilise the site's existing topographical levels to optimise the cut and fill operation. This will prevent/reduce the quantity of material that needs to be exported from the site.
- Use of prefabricated and standardised materials, wherever possible, will reduce waste on site. Many materials typically used for construction purposes can be produced to an exact specification and this can reduce the quantity of waste offcuts.
- The types of material to be used to construct the development should be considered, with priority given to use of recycled and/or reclaimed materials where feasible.
- The provision of accurate design specifications to subcontractors and supply chain teams.

3.2.5 As part of the Cambridge County Council adoption of the RECAP Waste Management Design Guide Supplementary Planning Document on 22 February 2012, the design guidance is taken into account when designing the waste infrastructure provision for the development.

To support this the RECAP Waste Management Design Guide Toolkit has been completed covering all phases of works (**Appendix B**) and the supporting indicative Composite Layout to be utilised for reference purposes only has been provided showing the infrastructure for waste management (**Appendix C**), a final version will be issued prior to the commencement of works and can be made available upon request.

3.3 Project Management

3.3.1 Efficient Project Management is key to reducing the quantity of waste produced on a site and ensuring that any waste produced is managed sustainably and appropriately wherever possible.

3.3.2 The following are a number of steps that will be considered by the project manager:

- By undertaking work in the correct order, the likelihood that remedial action will be required can be reduced. As a result, the amount of waste produced will also be minimised.
- By determining how materials and waste will be moved/stored around the site the site manager can ensure that waste is disposed of appropriately and that effective segregation takes place.
- Ensuring that all site staff and sub-contractors undergo a suitable site induction that includes information covering the awareness of good waste management and the specific measures to be used on site.
- By delivering regular toolbox talks on good waste management practices to make sure that everyone who works on the development knows how to reduce, re-use and recycle at the site.
- 'Just-in-time' delivery strategies can reduce waste created by improper storage and weather damage. Therefore, arrange deliveries of materials to align with project construction stages, where practicable. This will help avoid materials being stored on-site longer than is necessary and reduce the risk of inadvertent damage.
- Check contracts with suppliers and the supplier's haulier for return of packaging. It is often the case that a supplier contract will include a clause for return of packaging. However, this clause may not be included in the contract between the supplier and haulier. These issues should be identified and resolved as early as possible to prevent problems on-site.
- Consider suppliers that offer reusable packaging schemes.

4 MANAGEMENT OF CONSTRUCTION WASTE

4.1 Introduction

4.1.1 The following section details how overarching waste management practices would be undertaken during the site preparation phase and subsequent construction phases of the proposed scheme. This information is applicable to all phases of the scheme.

4.2 Waste Management

4.2.1 The main aims of managing waste should be to improve materials resource efficiency by promoting economic use of construction materials and methods to ensure that the waste hierarchy of reduce, reuse, recycle is followed before any disposal options are explored. In addition, opportunities for the illegal disposal of waste will be significantly reduced by ensuring compliance with existing legal controls and providing a full audit trail of waste removed from the construction site.

4.2.2 Records of all waste movements offsite will be retained by site management for the required time and these records will outline how waste was managed and demonstrate compliance with Duty of Care with respect to construction waste.

4.2.3 Different members of the construction team will have specific roles and responsibilities identified in **Table 2**.

Table 2: Roles and Responsibilities

Position	Roles	Responsibilities
Applicant	Promote waste minimisation Drive good practice within team Ensure hazardous waste identified prior to construction	Duty of Care Best Practice Identification of waste reduction opportunities
Architect	Consider design options to reduce waste Promote use of reclaimed materials Reduce bespoke designs which may result in the generation of excessive quantities of waste	Duty of Care Design out waste
Main Contractor – Site Manager	Develop, implement and communicate site specific waste plan/strategy Work with design team Ensure segregation of waste materials Designate and facilitate on site storage compounds/treatment areas Reduce waste being brought onto site (packaging) Ensure appropriate waste storage Keep proper records of all waste produced/ re-used/sent off-site Ensure appropriate off-site transport of waste and confirm destination of all waste leaving site	Health and Safety Development of a site-specific waste plan/strategy Management of on-site processes and programme Hazardous waste identification and management Duty of Care record keeping

Position	Roles	Responsibilities
Sub-Contractors	Develop method statements for works on site Liaise with Main Contractor to ensure they understand and comply with the site waste plan/strategy	Duty of Care Production of method statements Appropriate management of activities under direct control Ensure that wastes are segregated

4.2.4 Regular inspection of all waste management records and activities on site will be undertaken to ensure that the relevant legislation and any good practice measures outlined within this DWMMP are complied with. Inspections will be arranged by management teams at appropriate intervals.

4.3 Waste Classification

4.3.1 As part of waste Duty of Care, waste must be assessed and classified, and any hazardous properties identified. Classification must be done before the waste is moved, disposed of, or recovered. It will help determine any controls that need to be applied during movement of the waste and help identify where the waste needs to be sent.

4.3.2 In most cases classification of waste is straightforward, i.e. cardboards, plastics, metals, glass etc. However, for soils, liquids or other less clear waste types there is a methodology by which waste should be classified and assessed - *Technical Guidance WM3 – Guidance on the Classification and Assessment of Waste*. This technical guidance outlines the steps to be taken and the information to be considered. The classification and assessment of waste should consider geographical factors, historical factors, visual assessments and can include laboratory analysis. If this level of assessment is required, then further guidance will be sought.

4.4 Site Preparation

4.4.1 A single barn structure is present on the Eastern Boundary which contains asbestos material, that will be dismantled by competent qualified contractors suitably trained to handle asbestos containing items.

4.4.2 In order to prepare the site, earthworks and ground preparation will take place as part of the development.

4.4.3 The presence of any invasive non-native plants will be identified prior to vegetation clearance commencing. The removal, treatment and disposal of any identified invasive non-native plants will be undertaken in accordance with the latest guidance to prevent further growth or spread beyond the site. The current arboricultural survey has identified no invasive plant species at this time.

4.4.4 Vegetation removed from site will be reused where possible, by third parties. Examples of reuse include the creation of habitats for wildlife and the chipping of any vegetation to

create mulch but is subject to third parties proposed use which will be out of Bloor Homes Control.

4.4.5 Excavation is expected to take place as part of the development, and this will produce an amount of aggregate and soil which has the potential for re-use on site or further processed off-site for recycling.

4.4.6 Due to its previous use as agricultural land the risk of any contaminants being present is considered to be very low. Intrusive site investigation works undertaken across the Site (Geoenvironmental Assessment Reports 70023672-GIR, 2018) revealed no visual or olfactory evidence of contamination on site and the report concluded that no remedial measures are considered necessary at the site.

4.4.7 In the event any contamination is discovered, this plan will be updated to outline how any potentially contaminated excavated material will be handled and managed.

4.4.8 Efforts will be made to ensure that all non-hazardous waste aggregate and soil from the excavation works is re-used on site. Some of this waste will be used to level out the ground in specified areas to prepare the ground for construction and to create the appropriate development platform. Some of this reuse may need to be undertaken in accordance with a suitable waste control mechanism (e.g., waste exemption, CL:AIRE DoW CoP MMP, environmental permit). Surplus material will be disposed of at an appropriately permitted site.

4.4.9 Under the Waste Framework Directive, naturally occurring soils are not considered waste if they are reused on the site of origin for the purposes of development.

4.4.10 Should any clean and uncontaminated excavated soils be considered surplus to requirements they may then be classified as waste unless removed to a suitable site in accordance with the Definition of Waste: Development Industry Code of Practice (CL:AIRE). As outlined in Section 2.3.12, DoWCoP is a voluntary framework for determining whether or not excavated material arising from site during land development works are waste. In this case the DoWCoP could apply to excavated materials that are:

- Reused on the site of origin (e.g., made ground, source segregated aggregate, ground-based infrastructure),
- Transferred between sites and reused directly without treatment (clean and natural soil only); or
- Transferred between sites and reused following treatment, as part of a Cluster project.

4.4.11 Where waste materials do not meet the suitable for use criteria under DoWCoP, it is sometimes possible to use or treat them under a low-risk waste exemption or an environmental permit.

4.4.12 Should, during the course of any excavation and ground preparatory works, any potentially contaminated land not already identified be observed, works in that area will cease until an appropriate assessment has been undertaken by specialists to determine if there is any risk present to either the environment or human health. Should contaminated ground be discovered then the affected area of land may require remediation, with any contaminated excavated material treated or disposed of at an appropriately permitted site.

4.4.13 A number of measures will be implemented to minimise the excavation of materials and the subsequent management of it is undertaken in a manner that does not impact upon the environment or local amenity. This includes, but may not be limited to:

- Stripped soils should be stored for short periods of time only. This will ensure that the any detrimental impacts on the soils' physical, chemical and biological properties are minimised.
- Stockpiles of different excavated materials will be clearly defined and labelled (e.g., sign-posted) where necessary to reduce the possibility that different material streams will be mixed (e.g., topsoil and subsoil, hazardous and non-hazardous wastes).
- Temporary stockpiles will have side slopes of no greater than 1 in 3 and will not be higher than 3 metres.
- Any excavated materials will not be mixed with construction waste or contaminated materials.
- Stripped soil will be utilised onsite where possible. If a contractor imports soil, they must use a reputable supplier, establish the source of the soil and ensure it is suitable for the intended use.
- Stockpiles will be located away from any watercourses and drains and away from any occupied residential properties wherever possible. If drains are located near to any stockpiles, they will be blocked to ensure runoff does not enter them.
- Runoff from stockpiles will be carefully monitored and managed where required to ensure there is no impact to the environment.

4.5 Construction Waste

4.5.1 During construction activities, waste will be produced from surplus materials such as oversupply, off-cuts or damaged quantities of timber, plasterboard, concrete, tiles, glass, steel reinforcement etc. Some packaging waste is also expected to be produced. Surplus soil/gravel is expected to be produced due to cut/fill activities.

4.5.2 The quantities of waste generated during the construction phase can usually be estimated using information regarding the number and floor area of the residential units. This information can then be used in conjunction with Building Research Establishment (BRE) Benchmark Data (which is recognised within the construction industry). See **Appendix D**.

4.5.3 The BRE Benchmark Data details the generation of waste (tonnes/100 m^2) for different types of development. This data can be used to estimate the waste arising during the construction phase of the development. For residential developments it is **15.21 tonnes/100 m^2**.

4.5.4 The composition of the construction waste arisings will be dependent on the construction methods employed. However, they have been assumed to comprise of the wastes listed within Table 3.

4.5.5 The estimated figures of waste arising are based on BRE Waste Benchmark data for construction operations in the UK and the estimated quantities can be significantly

reduced through good on-site waste management practices as detailed in the following sections.

4.5.6 Using information provided by the developer, the overall floor area of the residential development (Affordable housing and open market) has been approximately calculated for each phase of works. This is based on the current figure of 869 proposed dwellings however these may change following detailed design:

Table 3: Approximate Floor Area Of Each Phase Of The Development

Development Phase	Approximate floor area (m^2)
A	0
B	13,682.11
C	8,007.59
D	16,705.45
E	10,730.86
F	9,199.35
G	14,252.07
H	0
I	0
TOTAL	72,577.43

4.5.7 Therefore, according to the forecast, the overall quantity of construction waste generated at the development will be **11,039.03 tonnes** ((72,577.43/100) x 15.21). This can be split by development phase:

Table 4: Quantity Of Construction Waste Generated During The Development Split By Development Phase

Development Phase	Quantity of construction waste (tonnes)
A	0
B	2,080.05
C	1,217.95
D	2,540.90
E	1,632.16
F	1,399.22
G	2,167.74
H	0
I	0
TOTAL	11,039.03

4.5.8 The estimated quantities of the different waste types produced is shown in **Table 5** these waste quantities exclude soil.

Table 5: Estimated Breakdown of Waste Types Generated by Development

Description	Weight of Waste Generated by Phase A (tonnes)	Weight of Waste Generated by Phase B (tonnes)	Weight of Waste Generated by Phase C (tonnes)	Weight of Waste Generated by Phase D (tonnes)	Weight of Waste Generated by Phase E (tonnes)	Weight of Waste Generated by Phase F (tonnes)	Weight of Waste Generated by Phase G (tonnes)	Weight of Waste Generated by Phase H (tonnes)	Weight of Waste Generated by Phase I (tonnes)
Bricks	0.0	167.47	98.01	204.47	131.35	112.60	174.45	0.0	0.0
Tiles and Ceramics	0.0	12.04	7.05	14.70	9.44	8.10	12.54	0.0	0.0
Concrete	0.0	240.67	140.85	293.85	188.76	161.82	250.69	0.0	0.0
Inert	0.0	631.57	369.63	771.12	495.34	424.64	657.88	0.0	0.0
Insulation materials	0.0	8.89	5.20	10.86	6.98	5.98	9.26	0.0	0.0
Metals	0.0	28.60	16.74	34.91	22.43	19.23	29.79	0.0	0.0
Packaging materials	0.0	57.46	33.63	70.16	45.07	38.64	59.86	0.0	0.0
Plasterboard/gypsum	0.0	65.54	38.36	80.02	51.40	44.06	68.27	0.0	0.0
Binders	0.0	2.46	1.44	3.01	1.93	1.66	2.57	0.0	0.0
Plastic (excluding packaging waste	0.0	40.23	23.54	49.11	31.55	27.05	41.90	0.0	0.0
Timber	0.0	178.96	104.74	218.51	140.36	120.33	186.42	0.0	0.0
Floor coverings (soft)	0.0	1.09	0.64	1.34	0.86	0.74	1.14	0.0	0.0
Electrical and electronic equipment	0.0	0.96	0.56	1.17	0.75	0.64	1.00	0.0	0.0
Furniture	0.0	0.14	0.08	0.17	0.11	0.09	0.14	0.0	0.0
Canteen/Office/Adhoc waste	0.0	19.02	11.13	23.22	14.92	12.79	19.81	0.0	0.0
Liquids	0.0	1.09	0.64	1.34	0.86	0.74	1.14	0.0	0.0
Oils	0.0	0.14	0.08	0.17	0.11	0.09	0.14	0.0	0.0
Bituminous mixtures	0.0	11.22	6.57	13.70	8.80	7.54	11.69	0.0	0.0
Hazardous waste	0.0	14.91	8.73	18.21	11.70	10.03	15.53	0.0	0.0
Other waste	0.0	55.14	32.27	67.32	43.25	37.07	57.44	0.0	0.0
Mixed construction and/or demolition waste	0.0	543.32	317.98	663.37	426.12	365.31	565.95	0.0	0.0

4.5.9 These figures can be significantly reduced through the use of good waste management practices.

4.6 Raw Materials and Waste Storage

4.6.1 Implementation of good practice measures in relation to on-site storage and security of raw materials and waste include the following:

- Designated areas prepared for the storage of raw materials and waste. These areas will be clearly marked and provided for all phases of the construction process.
- Storage areas for raw materials and waste should be located away from any sensitive receptors (i.e., any residents of the park, watercourses, boreholes etc).
- Clearly labelled or colour coded skips or containers to allow segregation of waste for re-use and recycling will be made available.
- Covered skips to prevent spread of wind-blown wastes will be used where appropriate.
- Hazardous waste materials will be stored in a secure bunded compound in appropriate containers with clear signage.
- Any fuels, oils or chemicals needed in the construction process will be stored in appropriate containers in a secure bunded compound.
- Where practicable, surplus bricks/blocks and aggregates will be reused within hardstanding areas onsite.
- Ensuring deliveries to the site are as far as practicable 'just in time' to minimise the generation of damaged goods becoming waste.
- Provision of onsite security to ensure potential loss of material from damage, vandalism or theft is avoided.
- Avoid the mixing of hazardous and non-hazardous materials.

4.6.2 Facilitating effective waste management will require communication with contractors, sub-contractors and site operatives.

4.6.3 Waste and material storage areas will be set up before site works start as close to the site compound as possible and with adequate hard standing for waste containers. Waste and material storage areas will be associated with the site compounds, which will be set up depending on the phases being developed. The current anticipated compound locations are:

- Phases A, B and C – Compound within the eastern area of the site.
- Phases D and F – Compound within the central area of the site.
- Phases H and G – Compound within the south western area of the site.
- Phases E and I – Compound location currently undetermined.

Locations of the waste and material storage areas will be confirmed once the development begins.

4.6.4 The waste storage area will comprise of a number of waste containers. Different phases of the development may have different waste requirements. This will dictate which waste containers may be on site at any one time. These will comprise of:

- **Metal Waste Skip** – for all types of clean metal, including rebar offcuts, scrap metal

etc.

- **Packaging/Light Mixed Waste** - Cardboard, paper products etc (not polythene sheeting or ties as this should go in the “mixed” skip).
- **Wood** - All types of clean untreated timber or wood products (treated timbers may contain hazardous preservatives and so may need to be placed in an additional separate skip).
- **Inert** - Clean concrete, rubble, hardcore, brick and block etc (should not decompose or create a hazard when buried).
- **Mixed General Waste Skip** - Any waste except contaminated waste that cannot be recycled in other skips on the site.
- **Hazardous Waste** – Usually a three drum system for expanding foam, aerosols and mastics. More drums can be added for additional hazardous waste types.
- Additional containers may be provided for paint cans and plasterboard offcuts in order for them to be stored separately. This will allow for them to be returned to the supplier as part of any takeback scheme, should it be available.
- Used pallets will be stacked in a designated area so that they may be collected by a pallet repatriation company. This company should identify pallets that can be reused and arrange for the disposal of any that are unsuitable or damaged beyond repair.

4.6.5 In order to promote the segregation of waste, Bloor Homes Ltd utilise tipping/mini skips which are placed outside the individual plots. These are used for the different types of waste produced. When full these are transported to the site’s central waste management location where they are tipped into the larger skips ready for collection by an appointed waste subcontractor.

4.6.6 Waste storage areas will be subject to daily checks by either a waste manager, or suitable personnel, designated by the site manager to ensure that the area remains clean and tidy, waste is segregated properly and that there are no impacts to the environment. This includes inspections of any stockpiles of material or waste present on site.

4.6.7 Take-back schemes will be utilised wherever available to promote the reuse of any offcuts or leftover materials, for example British Gypsum promote the return of any offcuts of plasterboard, and the Crown Paint Can-Back Recycling Scheme and Brewers Paint Can Recycling Service promote the reuse of leftover paint and paint cans.

4.6.8 No waste will be burnt on site.

4.7 Waste Recycling and Disposal Facilities

4.7.1 The Principal Contractor will arrange for a suitable waste and recycling service. This will include the provision of suitably sized and the number of storage containers, and their collection frequency.

4.7.2 In accordance with the waste hierarchy, disposal of waste will be the final option for any waste removed from site. The Principal Contractor will ensure that all waste is managed sustainably wherever possible.

4.7.3 Prior to waste being sent to any waste sites, they (the waste sites) will be checked to ensure they are suitable and that they can accept waste from the development.

These checks may be undertaken by any waste broker used, but records of checks will be made available upon request.

4.8 Setting Targets

4.8.1 Appropriate targets will be set in relation to the minimisation and recycling of any construction waste materials to be agreed at inaugural meetings of the project team. Suitable material specific targets for recovery (re-use or recycling) can then be set. **Table 6** provides a series of targets that have been set by Waste & Resources Action Programme (WRAP) for standard, good and best practice.

Table 6: Standard, Good and Best Practice Recovery Rates by material (WRAP)

Material	Standard Recovery %	Good Practice Recovery (Quick Win) %	Best Practice Recovery %
Timber	57	90	95
Metals	95	100	100
Plasterboard	30	90	95
Packaging	60	85	95
Ceramics	75	85	100
Concrete	75	95	100
Inert	75	95	100
Plastics	60	80	95
Miscellaneous	12	50	75
Electrical Equipment	Limited Information	70*	95
Furniture	0-15	25	50
Insulation	12	50	75
Cement	Limited information	75	95
Liquids and Oils	100	100	100
Hazardous	50	Limited information **	Limited information**

Material	Standard Recovery %	Good Practice Recovery (Quick Win) %	Best Practice Recovery %
*This is required recovery target for the type of Waste Electrical and Electronic Equipment (WEEE) likely to be produced from construction sites, e.g., lighting (the WEEE Regulations). **This cannot be 100% as most hazardous waste streams (e.g., asbestos) must be landfilled.			

4.8.2 To ensure that the system of waste minimisation reuse and recycling is effective, setting of onsite waste targets for the proposed development should be included within agreements with the proposed Principal Contractor.

4.9 Monitoring and Reporting

4.9.1 Any work undertaken will be managed in accordance with the developer's internal environmental management procedures.

4.9.2 A Site Waste Management Matrix will be used on site which outlines how different waste types will be disposed by detailing relevant EWC codes, waste descriptions, carriers and destination sites. The Matrix should simplify some of the following processes and will be regularly checked and updated to ensure the information it contains is relevant. This can be found in **Appendix E**.

4.9.3 Any person or company working for or on behalf of the main contractor that transports waste from the project site MUST be registered (licensed) as a waste carrier.

4.9.4 Any person or company employed to manage waste contracts/removals by other waste carriers on behalf of the main contractor MUST be registered as a 'Waste Broker'.

4.9.5 All movements of waste from site MUST be accompanied by a Waste Transfer Note (WTN) or Hazardous Waste Consignment Note (HWCN). WTNs and HWCNs must detail specific information regarding the type of waste produced. Common to both are:

- Date and time of movement.
- European Waste Catalogue (EWC) code.
- Description of waste.
- Address of the producing site (i.e., Land off Ermine Street, Huntingdon).
- Standard Industrial Classification Code (SIC) 2007, which describes the producer of the waste (i.e., construction of residential and non-residential buildings - 41.20).
- Waste carrier's details including waste carrier registration number.
- Quantity of waste.
- How it is contained (e.g., RORO skip).
- Address of the receiving site (e.g. name and address of transfer station or landfill).
- The Environmental Permit or Exemption Number associated with the receiving site.
- Confirmation that the waste hierarchy has been applied.

In addition to the above information, a HWCN must contain the following:

- Consignment note code that starts with the first six letters or numbers of the name of the company producing the waste and then five numbers or letters to create a different code each time waste is consigned from that premises.
- Chemical/biological component in the waste and their concentrations.
- Physical form of the waste (i.e., solid, liquid, gas, sludge, powder or mixed).
- Relevant Hazard Property Code (i.e., HP1- explosive, HP14- Ecotoxic etc).
- A Part E that the receiving site will sign to acknowledge receipt and then ensure is sent to the waste producer within three months.

4.9.6 By signing a WTN or HWCN, a site representative is confirming that all the details are correct and that the material is to be sent by a registered waste carrier to a suitably permitted receiving site, able to receive that type of waste. The signature is binding of this fact and completes the WTN or HWCN as a legal document, which must be retained for a minimum of two years if it is a WTN and three years if it is a HWCN.

4.9.7 All paper copies of notes will be retained within the site office and then transferred to an agreed regional/head office after an appropriate period of time and/or upon completion of the project.

4.9.8 Where electronic WTNs and HWCNs are issued the site manager and anyone else on site responsible for managing waste must have suitable online access to the required software so that copies of any notes required can be retrieved at any time they are required.

4.9.9 A suitable programme of monitoring will be put in place to:

- Quantify raw material wastage.
- Quantify the generation of each waste stream.
- Record any improvements in current working practices.
- Record the methods by which the waste streams are being handled and stored.
- Record the available waste disposal routes used.

4.9.10 Any sampling reports undertaken to assess and classify waste will be retained for the duration of the development.

4.9.11 Waste Transfer Notes and Hazardous Waste Consignment Notes will be made available to the Local Authority and Environment Agency upon request.

4.9.12 The implementation of the DWMMP will be monitored regularly and following any incident relating to the reuse and recycling of materials. Reports of these reviews will be retained. Should any review determine that the DWMMP has not been followed then these failures will be recorded. If possible, action will be taken to rectify any failures and any learning points recorded for future reference. Reports of these reviews will be made available to Huntingdonshire District Council upon request.

4.9.13 Should circumstances change during the course of the development, then the DWMMP will be updated to ensure that it is still applicable and outlines efficient waste management on site.

4.10 Waste Management Closure Report

4.10.1 Monitoring and reporting data will be used to prepare a Waste Management Closure Report.

4.10.2 The Waste Management Closure Report will provide a summary of the following:

- The Bloor Homes Material/Soil movement checklist (**Appendix F**).
- The Bloor Homes Monthly Environmental Checklist (**Appendix G**).
- Waste Transfer Notes for the waste managed via skips by Bloor Homes including the estimated weight of waste managed (to be provided following completion of the development).
- Record of inspections for checking waste management practices are adhered to (to be provided following completion of the development).

5 MANAGEMENT OF MUNICIPAL WASTE

5.1.1 The development design will provide sufficient municipal waste management infrastructure to allow for appropriate:

- Internal and external segregation and storage of recyclables, non-recyclables and compostable material.
- Access to storage and collection points by users and waste collection vehicles.

5.1.2 This will comply with the Cambridge County Council Minerals and Waste Core Strategy and the RECAP Waste Management Design Guide (see **Appendix B**).

5.1.3 The indicative Composite Layout (**Appendix C**) shows the layout of development and the appropriate infrastructure provided, however this is currently for reference purposes only.

5.1.4 Once the residential dwellings are occupied, waste management services will be undertaken by Cambridge County Council.

6 SUMMARY AND CONCLUSION

6.1 Summary of the Plan

6.1.1 Waste generated on site during the site preparation, construction and operational phases will be managed in an appropriate manner and in a sustainable way. The principles of the waste hierarchy will be complied with to ensure the environmental risks are minimised and the policies of Cambridgeshire County Council and Huntingdonshire District Council are adhered to.

Waste Management Design

6.1.2 Waste management will be taken into consideration during the design phase of the development in order to minimise waste production and align the development design with the Cambridgeshire County Council adoption of the RECEP Waste Management Design Guide.

Waste from Site Preparation

6.1.3 A significant quantity of the potential waste generated on site could be reduced by specifying the reuse of certain materials generated during preparation works.

6.1.4 Where waste may not be immediately suitable for reuse, any treatment to make this waste suitable for reuse will be undertaken in accordance with the relevant waste exemption or environmental permit.

Waste from the Construction Phase

6.1.5 Good practice measures in relation to on-site storage and security of raw materials and waste should be implemented specifically for the segregation of waste to aid recycling, and for waste and materials to be safely and securely stored on site.

6.1.6 It is estimated, using BRE Benchmark Data, that approximately **13,198.46 tonnes** of waste will be generated from the development of 882 residential dwellings at the land off Ermine Street, Huntingdon.

6.1.7 Appropriate targets should be set in relation to the minimisation and recycling of any construction waste materials to be agreed between the developer and principal contractor with agreed methodologies for waste quantification and monitoring.

Waste from the Operational Phase

6.1.8 Waste from operational phases of the development will be managed by the Local Authority via the appropriate site waste management infrastructure.

6.2 Conclusion

6.2.1 This DWMMP has taken into account the need to lessen the overall impact of waste generation through minimisation, reuse and recycling of materials from both the construction phase only.

6.2.2 The proposals identify the requirements of relevant waste policy and follow applicable guidance.

6.2.3 Opportunities to further reduce waste arisings and increase recycling rates from the proposed development have been identified to ensure it contributes to an improved waste management performance.

PLANNING PHASING PLAN

PROW 230/18

PROW 230/19

PROW 230/5

FP 230/4

LOCAL CENTRE

SCHOOL

PHASE I

PHASE A

PHASE B

PHASE D

PHASE F

PHASE H

PHASE G

PHASE C

PHASE E

New roundabout on Ermine Street drawing ref- 1602-81.PL01(F)

Northern controlled crossing facility drawing ref 1602-1.PL05(E)

Enhancement of the existing footway eastern side of Ermine Street drawing ref 1602-81.PL07(I)

Southern controlled crossing facility drawing ref 1602-1.PL04(E)

Southern Signalised Site Access drawing ref 1602-1.PL02(D)

A141 & Ermine Street Roundabout Improvements / controlled crossing ref 1602-1.PL03(D)

N

KEY:

Site Boundary

	NUMBERS
Phase A	0 0
Phase B	155 - 170
Phase C	75 - 82
Phase D	157 - 173
Phase E	109 - 120
Phase F	110 - 121
Phase G	152 - 167
Phase H	124 - 136
Phase I *	28 - 31

Phase Primary School

Phase Local Centre

* or Additional Primary School Site

Revision.

G	LATEST LAYOUT FOR PHASE D & F SHOWN P24-0760_DE_001F	01-07-24	NC
F	PHASE F EXTENTS UPDATED TO INCLUDE PROW PROPOSALS	09-05-24	NC
E	PHASING UPDATING FOLLOWING MEETING WITH LPA	11-04-24	NC
D	LATEST LAYOUT ADDED PHASING PHASING UPDATED TO SUIT	26-03-24	NC
C	EXISTING PROW SHOWN	25-01-24	NC
B	PHASING ALTERED	19-01-24	NC
A	PHASING ALTERED	21-12-23	NC

Development to the West of Ermine Street Huntingdon

Planning Phasing Plan

DATE: **November 2023**
SCALE: **1-2500 @ A2**
DRAWN: **NC**
CHECKED:

BLOOR HOMES

BLOOR HOMES SOUTH MIDLANDS
BEWICK HOUSE, 6 CYGNET DRIVE
SWAN VALLEY, NORTHAMPTON, NN4 9BS
TELEPHONE 01604 684400 FACSIMILE 01604 684401

Drawing No. SM5117-EN-027 Rev. G

APPENDIX A
SERVICE CONSTRAINTS

1. Service Constraints for all Reports

1.1. This Report (the “Report”) and any study, inspection, investigation, sampling, testing and or interpretation carried out in connection with the Report (together the "Services") were compiled and carried out by RSK Environment Limited (RSK) trading as Carbon Zero Consulting, Leap Environmental or RSK Geosciences, for the Client named in the first paragraph of the Report (the "Client") in accordance with the terms of an RSK Fee Proposal including RSK Environment Standard Terms and Conditions (the “Appointment”) between RSK and the Client, unless otherwise stated in the first paragraph of the Report. The Services were performed by RSK with the reasonable skill and care ordinarily exercised by a geo-environmental consultant at the time the Services were performed. Nothing in this Report shall be construed as imposing any fitness for purpose obligation. Further, and in particular, the Services were performed by RSK taking into account the limits of the scope of works required by the Client, the time scale involved and the resources, including financial and manpower resources, agreed between RSK and the Client.

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1.3 Unless otherwise agreed in writing, the Services were performed by RSK exclusively for the purposes of the Client. RSK is not aware of any interest of or reliance by any party other than the Client in or on the Services. Unless expressly provided in writing, RSK does not authorise, consent, or condone any party, other than the Client relying upon the Services. Should this Report or any part of this Report, or details of the Services or any part of the Services, be made known to any such party, and such party relies thereon, that party does so wholly at its own and sole risk, and RSK disclaims any liability to such parties. Any such party would be well advised to seek independent advice from a competent geo-environmental consultant and/or lawyer.

1.4 The Client shall not, without the prior written consent of RSK, assign, transfer, charge, mortgage, subcontract, or deal in any other manner with all or any of the benefits provided in this Report. Unless specified in the Appointment, RSK shall not be obliged to assign the benefit of the Report whether by collateral warranty, third party rights pursuant to the Contracts (Rights of Third Parties) Act 1999, letter of reliance or otherwise. If RSK agrees to any assignment of the benefit of this Report, in whatever form, benefits to third parties through collateral warranties, third party rights or letters of reliance shall not be provided unless a fee for each right, warranty or letter is agreed. The form of wording used in the warranty or letter shall be provided by RSK for agreement by the Client. Any reasonable changes to the form of wording will be implemented by mutual agreement, however the terms in the warranty or letter cannot offer the third party any greater benefit than the Appointment offered to the Client.

1.5 It is the understanding of RSK that this Report is to be used for the purpose described in the introduction to the Report. That purpose was a significant factor in determining the scope and level of the Services. Should the purpose for which the Report is used, or the proposed use of the site change, this Report may no longer be valid and any further use of or reliance upon the Report in those circumstances by the Client without the review and advice of RSK shall be at the Client's sole and own risk. RSK shall not be liable for any use of this Report for any purpose other than that for which it was provided.

1.6 The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the Report inaccurate or unreliable. The information and conclusions contained in this Report should not be relied upon in the future without the written advice of RSK. In the absence of such written advice of RSK, reliance on the Report in the future shall be at the Client's own and sole risk.

1.7 The observations and conclusions described in this Report are based solely upon the Services which were provided pursuant to the agreement between the Client and RSK. RSK has not performed any observations, investigations, studies or testing not specifically set out, or required by the Appointment between the Client and RSK. RSK is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the Services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this Report, RSK did not seek to evaluate the presence on or off site of asbestos, invasive plants, electromagnetic fields, lead paint, heavy metals, radon gas, fuel storage, persistent bio-accumulative or toxic chemicals (including PFAS and related compounds) or other radioactive or hazardous materials, unless specifically identified in the Services.

1.8 The Services are based upon RSK's observations of existing physical conditions at the Site gained from a visual inspection of the site together with RSK's interpretation of desk based publicly available information, including documentation, obtained from third parties and from the Client on the history and usage of the site, unless specifically identified in the Services and the limitations below:

a. The Services were based on information and/or analysis provided by independent testing and information services or laboratories upon which RSK was reasonably entitled to rely.

b. The Services were limited by the accuracy of the information, including documentation, reviewed by RSK and the observations possible at the time of the visual inspection.

c. The Services did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the Client or third parties, including laboratories and information services, during the performance of the Services.

d. The Client has identified in writing to RSK, the information, reports, findings, surveys and preliminary works RSK may not rely upon when providing the Services.

RSK is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to RSK, and including the doing of any independent investigation of the information provided to RSK, save as otherwise provided in the terms of the Appointment between the Client and RSK.

1.9 Any site drawing(s) provided in this Report is (are) not meant to be an accurate base plan for scale measurement but is (are) used to present the general relative locations of features on, and surrounding, the site. Features (intrusive and sample locations etc) annotated on site plans are not drawn to scale but are centred over the approximate location. Such features should not be used for accurate setting out and should be considered indicative only.

1.10 Should RSK be requested to review the Report after the date of issue of this Report, RSK shall be entitled to additional payment at the existing rates, or such other terms as agreed between RSK and the Client.

2. Service Constraints where the Report provides an intrusive assessment of ground conditions:

2.1 The intrusive environmental ground investigation aspects of the Services are a limited sampling of soil from the site, at pre-determined locations based on the known historic / operational configuration of the site. The conclusions given in this Report are based on information gathered at the specific test locations and can only be extrapolated to an undefined limited area around those locations. The extent of the limited area depends on the properties of the materials adjacent and local conditions, together with the position of any current structures and underground utilities and facilities, and natural and other

activities on site. In addition, chemical analysis was carried out for a limited number of parameters (as stipulated in the scope agreed between the Client and RSK, based on an understanding of the available operational and historical information) and it should not be inferred that other chemical species (not tested) are not present.

2.2 The comments given in this Report and the opinions expressed are based on the ground conditions encountered during the site work and on the results of tests made in the field and in the laboratory. The extent of the exploratory holes, laboratory testing and monitoring undertaken may have been restricted due to a number of factors including accessibility, the presence of buried or overhead services, current development, site usage, timescales or the Client's specification. The exploratory holes only assess a small proportion of the site area with respect to the site as a whole, and as such may only provide an indicative assessment of ground conditions on site. There may be conditions pertaining to the site that have not been disclosed by the investigation and therefore could not be taken into account. In particular, it should be noted that there may be areas of made ground not detected due to the limited nature of the investigation or the thickness and quality of made ground across the site may be variable. In addition, groundwater levels and ground gas concentrations and flows, may vary from those reported due to seasonal, or other, effects and the limitations stated in the data should be recognised. The presence of hotspots of undisclosed contamination or exceptional and unforeseen ground conditions cannot be discounted.

2.3 Where the Services include Investigation of an exploratory nature or relating to physical ground works, any costings and prices provided in the Report are estimated and provided for guidance purposes only. The actual cost and time quantities shall be remeasured and shall be dependent upon the ground or other conditions, constraints present, and number and depth of the investigation locations, which shall influence the number of samples and tests required, and the quantities of soil being classified.

2.4 Asbestos is often observed to be present in soils in discrete areas. Whilst asbestos-containing materials may have been locally encountered during the fieldworks or supporting laboratory analysis, the history of brownfield and demolition sites indicates that asbestos fibres may be present more widely in soils and aggregates, which could be encountered during more extensive ground works. However, this Report does not constitute an asbestos survey. On this basis, the presence of asbestos on site cannot be discounted and a full asbestos survey should be undertaken.

2.5 Unless stated otherwise, only preliminary geotechnical recommendations are presented in this Report and these should be verified in a Geotechnical Design Report, once proposed construction and structural design proposals are confirmed. Eurocode 7 gives guidance on the type of sampling, sample quality, number and spacing of intrusive investigations, and number of laboratory tests required. It is intended that the Geotechnical Information section of this Report will fulfil the general requirements of the Ground Investigation Report as set out in section 6 of Eurocode7, although this is subject to the restrictions imposed on the investigation, as listed above. For geotechnical design, Eurocode 7 requires the Geotechnical Design Report to address both the geotechnical and structural aspects of the geotechnical design for both the limit and serviceability states. The Geotechnical Appraisal section of this Report will not meet the requirements of a Geotechnical Design Report (GDR) and should therefore be used for preliminary guidance only.

3. Service Constraints where the Report relates to Surface Water Management:

3.1 The Surface Water Management Inspection (SWMI) Report, documents provided, observations, actions, and recommendations, with respect to the management of potential pollution issues to surface waters, made during the site Inspection visit, are those present at the time of the visit, and may not represent those recorded by others on the same day.

3.2 The comments given in this Report and the opinions expressed are based on the weather, ground and ground water conditions encountered during the site work and on the results of tests made in the field and in the laboratory. However, there may be conditions pertaining to the site that have not been disclosed by the inspection and therefore could not be taken into account. In addition, groundwater

levels and flows, may vary from those Reported due to seasonal, or other, effects and the limitations stated in the data should be recognised.

3.3 RSK places a degree of dependence upon oral information provided by site representatives, which is not readily verifiable through visual inspection, or supported by any available written documentation. RSK shall not be held responsible for conditions or consequences arising from relevant facts that were not fully disclosed by facility or site representatives at the time this Report was prepared.

3.4 This Report is a live document, to be continually reviewed and updated as the development progresses or other changes occur on site. RSK can only maintain the currency of this Report through the Client requesting support with supplementary site visits or attendance at meetings ahead of key stages of the development in relation to surface water management. Our risk rating assesses a number of risk factors in line with the source-pathway- receptor model and is therefore subject to constant change.

3.5 Standard design drawings are indicative. Material types, dimensions and construction details will need to be adjusted by the Client to suit the specific conditions / flows on Site.

3.6 The full responsibly for implementing the site-specific protection and maintenance measures to protect the surface water system as stated in this Report, remains with the Client and their site management team. Additional control measures may be required to achieve the objectives set out in the Surface Water Management Plan to be implemented and financed by the Client.

4. Service Constraints where the Report relates to Waste Management:

4.1 In accordance with the definition provided in the Waste Framework Directive (WFD), materials are only considered waste if 'they are discarded, intended to be discarded or required to be discarded, by the holder'. Naturally occurring soils are not considered waste if re-used on the site of origin for the purposes of development. Soils such as made ground that are not of clean and natural origin (irrespective of whether they are contaminated or not) and other materials such as recycled aggregate, do not necessarily become waste until the criteria above are met. Excavation arisings from the development may therefore be classified as waste if surplus to requirements and/or unsuitable for re-use.

4.2 It is the duty of the waste producer, to ensure that all waste is accurately classified prior to waste disposal. Technical Guidance WM3 (EA, 2018) sets out in its Appendix D requirements for waste sampling. It is a legal requirement to correctly assess and classify waste. The level of sampling should be proportionate to the volume of waste and its heterogeneity. Unless otherwise stated, the waste assessment presented in this Report should be considered as preliminary and further testing and assessment of the waste under the provisions of a Waste Sampling Plan may be required to obtain the necessary level of data required for basic characterisation of the waste in support of disposal.

4.3 Unless stated otherwise in the Report, information relating to historical operations at the site was not reviewed as part of the assessment by RSK. In addition, unless otherwise stated in the Services, RSK was not present during the collection of the samples nor had any input on the chemical testing suite. Therefore, the waste assessment and classification detailed in this Report are based solely on any information that were provided to RSK (e.g., laboratory chemical data, exploratory hole records) and were completed without prejudice for our Client.

4.4 RSK's assumes that any ground investigation data, chemical testing results etc., that were provided by the Client to inform the waste assessment and supporting review were carried out in accordance with current best practice and relevant guidance/ standards, where applicable. Thus, the comments given in this Report and the opinions expressed are based solely on the information provided by the Client. However, it is noted that there may be conditions pertaining to the site that have not been disclosed by the investigation and therefore could not be taken into account as part of the RSK assessment.

5. Service Constraints for Construction Environmental Management Plan Reports:

5.1 This Report should be considered in the light of any changes in legislation, statutory requirement or industry practices that may have occurred subsequent to the date of issue.

5.2 The measures and comments outlined in this Report and any opinions expressed are based on the plans provided at the time and discussions with relevant parties. However, there may be conditions pertaining to the site that have not been disclosed by investigations and therefore could not be taken into account.

5.3 This CEMP is a live document and is subject to change throughout the project, as and when necessary, to ensure management of environmental aspects remains relevant, and to ensure continued compliance with legislation and commitments as they may change. RSK understands that this CEMP will be reviewed by the Client every six months and updated as and when necessary.

5.4 It is the full responsibility of the Principal Contractor/ Client to ensure that their works do not contravene legal requirements, and adherence to this CEMP alone cannot be a full defence regarding legal action against the Principal Contractor.

6. Service Constraints where the Report relates to Ground Gas Membrane Verification:

6.1 This Report is limited to the verification of the gas resistant membrane/vapour membrane/ radon barrier after installation and no inspections were undertaken of the substrate (i.e. prepared ground). The Report therefore does not constitute as a full verification of ground gas protection system.

6.2 The comments given in this Report and the opinions expressed, are based on the condition of the ground gas membrane as encountered at the time of inspection by suitably qualified personnel. RSK cannot accept liability for any subsequent change to the status of the gas membrane by follow-on trades or other construction activity.

6.3 Where not designed by RSK, the verification of protection measures is carried out with reference to the gas protection design provided by the Client. RSK assume the scope of gas protection measures as determined by third parties to be correct and to have achieved any required approval from authorities.

6.4 The Ground Gas Design Report/Remediation Strategy and Verification Plan contains details of the procedures to be adopted for inspection and validation of the works. However, it should be noted that responsibility for the correct implementation of the strategy lies with the appointed contractor. RSK cannot be held responsible for any remedial works that are carried out without the agreed procedures involving either direct supervision by RSK, or inspection and validation of the works by a representative from RSK.

7. Service Constraints for Environmental Due Diligence (EDD)Reports:

7.1 The comments given in this Report and the opinions expressed are based on the information obtained and reviewed as part of the desk-based assessment. However, there may be conditions pertaining to the Site that have not been disclosed by the assessment and therefore could not be taken into account. Furthermore, no intrusive investigations, monitoring or sampling have been undertaken to confirm the environmental status of the site, therefore any comments relating to ground conditions and subsurface contamination are based solely on a review of desk-based information.

7.2 This Report describes the results of the EDD exercise. The scope of this EDD Report, where appropriate, covers legal or regulatory compliance with respect to UK or international regulations associated with environmental matters.

7.3 As with any EDD exercise, there is a certain degree of dependence upon information provided by the target company. The EDD does not include a site walkover / visit or liaison with site representatives unless identified in the Services. Therefore, the assessment is based on the available desk study information. Also, there is a certain degree of dependence upon oral information provided by site representatives, which is not readily verifiable through visual inspection, or supported by any available written documentation. RSK shall not be held responsible for conditions or consequences

arising from relevant facts that were not fully disclosed by facility or site representatives at the time this EDD exercise was performed.

7.4 This Report, including all supporting data and notes (collectively referred to hereinafter as "information"), was prepared or collected by RSK for the benefit of its Client.

7.5 The comments given in this Report and the opinions expressed are based on the information obtained and reviewed as part of the desk-based assessment and the site inspection visit. However, there may be conditions pertaining to the Site that have not been disclosed by the assessment and therefore could not be taken into account. Furthermore, no intrusive investigations, monitoring or sampling have been undertaken to confirm the environmental status of the Site therefore any comments relating to ground conditions and subsurface contamination are based solely on a review of desk-based information and observations collected during the site inspection visit.

8. Service Constraints for Ground source heat energy Reports:

8.1 It is understood that this is a desktop survey only and that there are no requirements for a site walkover, service utility survey, or provision of service plans. These services can be provided upon request if required.

8.2 At a later stage, it is possible that a thermal response test (TRT) will need to be completed, for which a test borehole will have to be drilled, and these would be costed at the time. RSK can provide all aspects of subsequent site work for a GSHP system if required.

9. Service Constraints for Water Abstraction Borehole Reports:

9.1 The Report aims principally to only identify and assess the suitability of the site for a water abstraction borehole. This Report should be considered in the light of any changes in legislation, statutory requirements, and industry practices, that have occurred subsequent to the date of the Report.

9.2 Unless stated in the Report, the opinions expressed in this Report including all comments and recommendations provided are on the basis of the information obtained from a desk-based assessment.

APPENDIX B
RECAP WASTE MANAGEMENT DESIGN GUIDE TOOLKIT AND COMPOSITE LAYOUT



10
RECAP Waste Management Design Guide Toolkit

How to use the Toolkit

10.1 The purpose of the RECAP Waste Management Design Toolkit (referred to as the Toolkit) is to allow the effective assessment of the waste management requirements by the relevant Local Planning Authority including consultation with the Waste Collection and Disposal Authorities for all scales of both residential and commercial developments.

10.2 For all such developments a completed version of the RECAP Waste Management Design Guide Toolkit should be submitted with the planning application in accordance with the requirement set out in policy CS28 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy.

Components

10.3 The Toolkit is made up of 3 tools as described below. The tools are interlinked and refer to each other as appropriate.

- **Design Standards Checklist –** Developers will be expected to demonstrate that their proposals satisfy the requirements of this Guide by assessing their proposals against the expected standards which are brought together under the Design Standards Checklist.
- **Assessment Criteria –** Depending upon development proposals, it may be that a developer is required to conduct a wider assessment of the impact of their scheme (or aspects thereof). Criteria for such an assessment are presented under the Assessment Criteria.
- **Basis for Conditions and Agreements –** Dependant upon the nature of the development it will be appropriate to apply planning conditions or negotiate S106 agreements/CIL for the provision of waste collection, waste storage containers, Bring Sites, alternative methods of waste collection and Household Recycling Centres.

Design Standards Checklist	Applies to all scales of residential and commercial developments. To be used and completed by the developer and supported by plans and/or documents as appropriate.
Assessment Criteria	To be completed by the developer where proposals involve the construction of waste storage compound(s) and/or installation of Bring Site infrastructure and/or alternative schemes.
Basis for Conditions and Agreements	To be used by the Local Planning Authority in relation to the provision of waste storage containers, the Recycling Centre network and the Bring Site network, as appropriate.

Table 10.1 Applicability and Use

10.4 Where appropriate, the Toolkit will supplement a waste audit/strategy as outlined in Policy CS28 of the adopted Core Strategy.

Process

10.5 The diagram on the following page illustrates the process for completing the Toolkit and shows responsibilities.

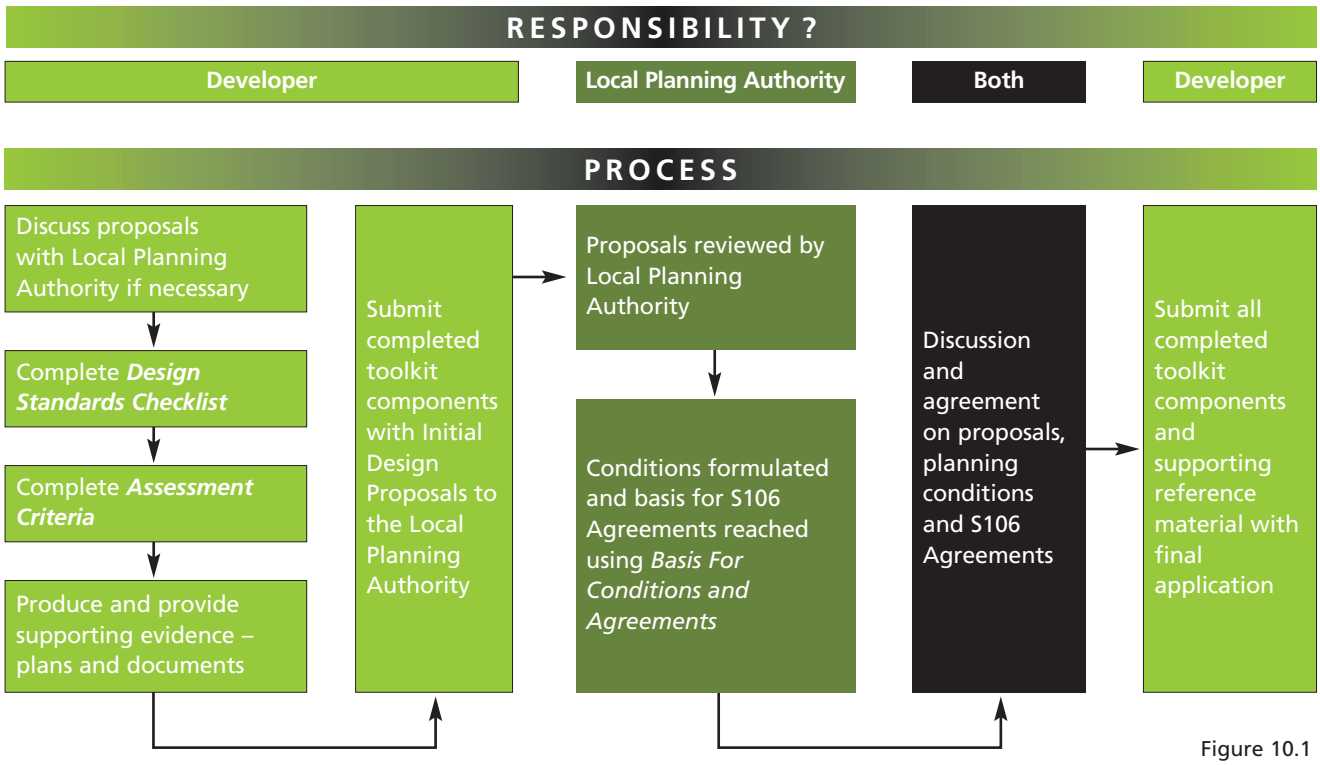

RESPONSIBILITY ?
Developer
Local Planning Authority
Both
Developer
PROCESS
Discuss proposals with Local Planning Authority if necessary
Complete Design Standards Checklist
Complete Assessment Criteria
Produce and provide supporting evidence – plans and documents
Submit completed toolkit components with Initial Design Proposals to the Local Planning Authority
Proposals reviewed by Local Planning Authority
Conditions formulated and basis for S106 Agreements reached using Basis For Conditions and Agreements
Discussion and agreement on proposals, planning conditions and S106 Agreements
Submit all completed toolkit components and supporting reference material with final application

Figure 10.1

Design Standards Checklist

Instructions

Usage

10.6 To be completed by the developer and submitted to the Local Planning Authority with all supporting plans and/or documents.

10.7 The DESIGN STANDARDS CHECKLIST applies to all developments of a residential, commercial or mixed residential/ commercial nature regardless of scale.

Completion

10.8 Completion involves 2 distinct steps:

Step 1	Developers should ensure that they are aware of the minimum requirements the Design Guide places upon them. A 'yes' should be placed in the adjacent box to signify that an issue has been considered at the stage of initial design proposals. Where a standard is not met, the developer must justify why this is the case as part of the Design and Access Statement which will be submitted with the planning application.
Step 2	Evidence of design specifications/details should be provided to the Local Authority with reference to the necessary relevant plans and/or documents made in the final box.

Table 10.2

Note: Consultation with the Local Planning Authority and Waste Collection and Disposal Authorities is encouraged, particularly where proposals relate to large scale development.

DESIGN STANDARDS CHECKLIST			
Key consideration	**Step 1** Aware of Standard Minimum Expectations?	Does this apply to you? Yes or No, please state why	**Step 2** Submit proposals to Planning Authority (Provide Plan/document Reference)
Residential – Internal Storage requirement Refer to Part 4.4 of the Design Guide.	35-40 litres for single dwellings and multi-occupancy developments (low-rise and high rise) permitting segregation of waste as appropriate. Typical container specifications are detailed at Appendix A.	Yes, this has been incorporated into the design of all phases of the development.	
Residential – External storage requirement Refer to part 4.7 of the Design Guide.	Single dwelling – Space for containers allowing a maximum of 775 litres of capacity must be provided. Typical container specifications are detailed at Appendix A. Provision of containers and/or financial contributions towards may also be required.	Yes, this has been incorporated into the design of all phases of the development.	See 'Composite Layout' drawing.
	Low-rise with communal gardens – Space for containers allowing between 320 litres to a maximum of 720 litres of capacity per unit (depending upon the number of rooms – see Table 4.1) must be provided. Typical container specifications are detailed at Appendix A. Provision of containers and/or financial contributions may also be required.	Yes, this has been incorporated into the design of all phases of the development.	See 'Composite Layout' drawing.
	Low-rise without communal gardens – Space for containers allowing between 240 litres to a maximum of 640 litres of capacity per unit (depending upon the number of rooms – see Table 4.1) must be provided. Typical container specifications are detailed at Appendix A. Provision of containers and/or financial contributions may also be required.	Not applicable.	
	High rise – Space for containers allowing between 240 litres to a maximum 640 litres of capacity per unit (depending upon the number of rooms – see Table 4.1) must be provided. Typical container specifications are detailed at Appendix A. Provision of containers and/or financial contributions may also be required.	Not applicable.	

Table 10.3

DESIGN STANDARDS CHECKLIST			
Key consideration	**Step 1** Aware of Standard Minimum Expectations?	Does this apply to you? Yes or No, please state why	**Step 2** Submit proposals to Planning Authority (Provide Plan/document Reference)
Commercial – storage requirements Refer to part 4.15 of the Design Guide.	Offices – 2600 litres per 1000m gross floor area. Typical container specifications detailed at Appendix A.	Not applicable.	
	Retail – 5000 litres per 1000m gross floor area. Typical container specifications detailed at Appendix A.	Not applicable.	
	Restaurants/Fast food outlets – 1500 litres per 20 dining spaces. Typical container specifications detailed at Appendix A.	Not applicable.	
	Hotels – 1500 litres per 20 dining spaces. Typical container specifications detailed at Appendix A.	Not applicable.	
Waste storage Point – Single Houses Refer to Part 5.6 of the Design Guide.	• Waste should not have to be moved more than 30m to storage area; • Storage location should not be more than 25m distance from the collection point; • Collection crews should not have to carry individual waste containers or move 2-wheeled containers more than 25m; • Passage of a 2 wheeled container from store to collection point should avoid steps, but where not possible should avoid transfer over more than 3 steps; • Gradients over which containers must traverse must not exceed 1:12; • Not have to be moved through a building to the collection point.	Yes, this has been incorporated into the design of all phases of the development.	See 'Composite Layout' drawing.
Waste storage Point – Flats and Apartments and Commercial Developments Refer to Part 5.9 of the Design Guide.	• Waste should not have to be moved more than 30m (excluding vertical distance) to storage area; • Storage location should not be more than 10m distance from the collection point; • Passage of waste containers from store to collection point should avoid steps, but where not possible should avoid transfer over more than 3 steps. • Gradients over which containers must traverse should not exceed 1:12.	Yes, this has been incorporated into the design of all phases of the development.	See 'Composite Layout' drawing.
Waste Storage Infrastructure Refer to Part 6 of the Design Guide	Where infrastructure is installed for the communal storage of waste a SIMPLE assessment of the location and the proposed infrastructure must be made against the key factors specified in the accompanying Assessment Criteria. The size of any storage area should be capable of accommodating the required number of waste receptacles (and their associated dimensions) or provide adequate capacity. General design features for above-ground storage compounds: • Sufficient clearance provided to allow full opening of container lid; • 150mm clear space between and around containers; • Minimum working headroom of at least 2m (where compound is covered); and • Layout such that any one receptacle can be serviced without having to move any other receptacle.	Yes, this has been incorporated into the design of all phases of the development.	See 'Composite Layout' drawing.

Table 10.3

DESIGN STANDARDS CHECKLIST			
Key consideration	**Step 1** Aware of Standard Minimum Expectations?	Does this apply to you? Yes or No, please state why	**Step 2** Submit proposals to Planning Authority (Provide Plan/document Reference)
	Specific design requirements are detailed at Appendix D and should be referred to. Underground storage systems require: • Area(s) of ground free from services; and • Sufficient clear space above and around to allow emptying of containers. An indicative generic specification of an underground Bring Site facility is attached at Appendix G.		
Highways Refer to Part 7.3 of the Design Guide.	Where development proposals will seek to utilise a standard service as provided by the Waste Collection Authority, highways should: • Have a minimum width of 5m; • Permit collection vehicles to continue mainly in a forward direction; • Not require vehicles to reverse more than 12m; • Be constructed in accordance with relevant guidance; and • Allow at least 4m vertical clearance. In addition a minimum of 3.5m width and 4m in length should be allowed where the emptying of containers takes place. Sufficient overhead clearance should also be provided to allow for operation.	Yes, this has been incorporated into the design of all phases of the development.	See 'Composite Layout' drawing.
Household Recycling Centre requirement Refer to Part 8.7 of the Design Guide	Where appropriate, developers will be expected to: • Provide finance for upgrading existing Household Recycling Centres; or • Provide finance for new Household Recycling Centres; and/or provide land for strategically located Household Recycling Centres. Section 106 Agreements or other suitable legal agreements, will be used to secure contributions/land and ensure that adequate provision is made. In Peterborough, contributions to related off-site infrastructure for development will be consistent with the Planning Obligations Implementation Scheme.	Not applicable.	
Bring Site Requirement Refer to Part 9.5 of the Design Guide	To ensure provision of 1 additional Bring Site for every 800 dwellings, developers will be required to: • Provide finance and/or provision of additional Bring Sites; • Provide finance for upgrading existing facilities. Residential developers will be minimally required to provide temporary on-site facilities by occupation of the 50th residential property.	Not applicable.	

Table 10.3

DESIGN STANDARDS CHECKLIST			
Key consideration	**Step 1** Aware of Standard Minimum Expectations?	Does this apply to you? Yes or No, please state why	**Step 2** Submit proposals to Planning Authority (Provide Plan/document Reference)
	Both temporary and permanent Bring Site facilities should be located at least 20m distance from the nearest property, accessible by service vehicles and located so as to avoid damage to overhead services during servicing. Section 106 Agreements or other suitable legal agreements, will be used to secure contributions and ensure that adequate provision is made. A SIMPLE assessment of the location and proposed infrastructure must be made against the key factors as specified in the accompanying Assessment Criteria. In Peterborough, contributions related to off-site provision for development will be consistent with the Planning Obligations Implementation Scheme.		
Alternative Waste Management Schemes Refer to Part 1.17 of the Design Guide	A DETAILED assessment of the scheme must be made against the key factors as specified in the accompanying Assessment Criteria. A developer will be required to fund such schemes beyond the amount the Local Authority would otherwise pay for standard service and pay for and provide non-standard infrastructure.	Not applicable.	

Table 10.3

Submission

10.9 The completed DESIGN STANDARDS CHECKLIST must be submitted with all initial design proposals and will be reviewed by the Local Planning Authority.

10.10 The DESIGN STANDARDS CHECKLIST will then be submitted with all final development applications following any discussion with the Local Planning Authority and necessary amendments.

Assessment Criteria

Instructions

Usage

10.11 To be completed by the developer and submitted to the Local Planning Authority with all supporting plans and/or documents.

10.12 The assessment criteria tool only has to be used where development proposals involve:

- Construction of a waste storage compound; and/or
- Installation of Bring Site infrastructure; and/or
- An alternative scheme.

10.13 However, where the ASSESSMENT CRITERIA TOOL would otherwise not apply, a developer may still wish to voluntarily assess the waste management aspects of their development proposal against several or all of the key factors.

Completion

10.14 Completion of the ASSESSMENT CRITERIA TOOL should be as follows:

Waste Storage	**Complete Sheet A.** Provide a SIMPLE Compound assessment
Installation of Bring Site Infrastructure	**Complete Sheet B.** Provide a SIMPLE assessment. Discussion with Local Planning Authority required for issues of accessibility and health and safety.
Alternative Scheme	**Complete Sheet C.** Provide a DETAILED assessment. Consultation with Local Planning Authority mandatory for all issues.

Table 10.4

10.15 SIMPLE Assessments – adequate amount of information to demonstrate suitability of proposals in relation to the provision of waste management facilities is required.

10.16 DETAILED Assessments – more detailed information must be provided to demonstrate the suitability of proposals for waste management facilities which differ from the standards set out in the RECAP Design Guide.

Assessment Criteria

SHEET A: ASSESSMENT CRITERIA FOR WASTE STORAGE COMPOUNDS		
Assessment Factor	Information Required – Simple Assessment	Submit Assessment to Planning Authority (Provide Document Reference)
Quality Place Making	Design should also be assessed for consistency with the wider development framework and the promotion of quality place making.	Considered within design. See 'Composite Layout' drawing.
Proposals for On-site Treatment	On-site treatment (e.g. bailing, compaction or other treatment that may be utilised in an On-site alternative scheme) may be beneficial on larger sites. In such cases, a clear illustration must be provided of (where appropriate): • Sustainability of treatment methods; • Waste volume reduction; • Beneficial use of waste (recovery of value, energy, etc); and • Implications for Waste Collection Authority and Waste Disposal Authority.	Not applicable.
Accessibility	Depending upon the waste infrastructure employed, it must be demonstrated that: • The location chosen offers convenience and efficiency for all users; • An assessment of potential user conflict has been made with appropriate solutions provided; and • Marking and signage is adequate for function.	Considered within design. See 'Composite Layout' drawing.
Health and Safety	All proposals must be accompanied by a health and safety risk assessment and account must be made of (where appropriate): • Lighting; • Steps and gradients; • Marking and signage; • User conflicts; • Risks from equipment/technology utilised; and • Training requirements (operators);	Considered within design, where relevant. See 'Composite Layout' drawing.
Security	It must be clearly demonstrated that proposals: • Will not jeopardise the security of the wider area; and • Infrastructure will, as appropriate, feature security measures that permit efficient user operation but are robust enough to deter vandalism, arson and other forms of misuse. Notes on waste compound security are presented at Appendix E.	Considered within design, where relevant. See 'Composite Layout' drawing.
Protection of the Environment	Assessment must be made of the impact proposals may have in terms of: • Nuisance and amenity (including visual impact); • Pollution threat to environmental media (i.e. air, land and water). • Damage and disturbance to nationally and internationally protected sites and wider biodiversity; and • Damage and disturbance to nationally protected sites/features of historic and archaeological interest. Suitable mitigation measures must be outlined.	Considered within design, where relevant. See 'Composite Layout' drawing.
Maintenance	Where maintenance responsibility lies with the developer they must: • Submit proposed maintenance schedules (routine and non-routine); • Submit proposals for maintaining records of works undertaken; and • Submit details of third party contractors to be employed.	Not applicable.

Sheet A: Assessment Criteria for Waste Storage Compounds

For multiple storage points/methods, this table should be copied and completed as appropriate.

SHEET B: ASSESSMENT CRITERIA FOR PROVISION OF BRING SITE INFRASTRUCTURE			
Assessment Factor	Information Required – Simple Assessment	Consult with Local Authority? Yes/No	Submit Assessment to Planning Authority (Provide Document Reference)
Quality Place Making	Design should also be assessed for consistency with the wider development framework and the promotion of quality place making.	Not applicable.	
Proposals for On-site Treatment	On-site treatment (e.g. bailing, compaction or other treatment that may be utilised in an On-site alternative scheme) may be beneficial on larger sites. In such cases, a clear illustration must be provided of (where appropriate): • Sustainability of treatment methods; • Waste volume reduction; • Beneficial use of waste (recovery of value, energy, etc); and • Implications for Waste Collection Authority and Waste Disposal Authority.	Not applicable.	
Accessibility	Depending upon the waste infrastructure employed, it must be demonstrated that: • The location chosen offers convenience and efficiency for all users; • An assessment of potential user conflict has been made with appropriate solutions provided; and • Marking and signage is adequate for function.	Not applicable.	
Health and Safety	All proposals must be accompanied by a health and safety risk assessment and account must be made of (where appropriate): • Lighting; • Steps and gradients; • Marking and signage; • User conflicts; • Risks from equipment/technology utilised; and • Training requirements (operators).	Not applicable.	
Security	It must be clearly demonstrated that proposals: • Will not jeopardise the security of the wider area; and • Infrastructure will, as appropriate, feature security measures that permit efficient user operation but are robust enough to deter vandalism, arson and other forms of misuse. Notes on waste compound security are presented at Appendix E.	Not applicable.	
Protection of the Environment	Assessment must be made of the impact proposals may have in terms of: • Nuisance and amenity (including visual impact); • Pollution threat to environmental media (i.e. air, land and water). • Damage and disturbance to nationally and internationally protected sites and wider biodiversity; and • Damage and disturbance to nationally protected sites/features of historic or archaeological interest. Suitable mitigation measures must be outlined.	Not applicable.	
Maintenance	Where maintenance responsibility lies with the developer they must: • Submit proposed maintenance schedules (routine and non-routine); • Submit proposals for maintaining records of works undertaken; and • Submit details of third party contractors to be employed.	Not applicable.	

Sheet B: Assessment Criteria for provision of Bring Site Infrastructure

For multiple provision of Bring Sites, this table should be copied and completed as appropriate.

SHEET C: ASSESSMENT CRITERIA FOR ALTERNATIVE SCHEMES			
Assessment Factor	Information Required – Detailed Assessment	Consult Local Authority? Yes/No	Submit Assessment to Planning Authority (Provide Document Reference)
Development Density and Scale	A developer must demonstrate that their proposals: • Will adequately serve the population density of their development and, if applicable, the wider population; • Allocate sufficient land to allow their proposals to function efficiently; and • Provide sufficient capacity to account for anticipated density changes in the short-term.	Not applicable.	
Infrastructure Design	It must be demonstrated that infrastructure employed: • Is adequate to execute function; • Is robust and durable; • Is compliant with all relevant standards; and • Avoids unnecessary complexity.	Not applicable.	
Quality Place Making	Design should also be assessed for consistency with the wider development framework and the promotion of quality place making.	Not applicable.	
Proposals for On-site Treatment	On-site treatment (e.g. bailing, compaction or other treatment that may be utilised in an alternative scheme) may be beneficial on larger sites. In such cases, a clear illustration must be provided of (where appropriate): • Sustainability of treatment methods; • Waste volume reduction; • Beneficial use of waste (recovery of value, energy, etc); and • Implications for Waste Collection Authority and Waste Disposal Authority.	Not applicable.	
Accessibility	Depending upon the waste infrastructure employed, it must be demonstrated that: • The location chosen offers convenience and efficiency for all users; • An assessment of potential user conflict has been made with appropriate solutions provided; and • Marking and signage is adequate for function.	Not applicable.	
Health and Safety	All proposals must be accompanied by a health and safety risk assessment and account must be made of (where appropriate): • Lighting; • Steps and gradients; • Marking and signage; User conflicts; • Risks from equipment/technology utilised; and • Training requirements (operators).	Not applicable.	
Security	It must be clearly demonstrated that proposals: • Will not jeopardise the security of the wider area; and • Infrastructure will, as appropriate, feature security measures that permit efficient user operation but are robust enough to deter vandalism, arson and other forms of misuse.	Not applicable.	

Sheet C: Assessment Criteria for Alternative Schemes

SHEET C: ASSESSMENT CRITERIA FOR ALTERNATIVE SCHEMES			
Assessment Factor	Information Required – Detailed Assessment	Consult Local Authority? Yes/No	Submit Assessment to Planning Authority (Provide Document Reference)
Protection of the Environment	Assessment must be made of the impact proposals may have in terms of: • Nuisance and amenity (including visual impact); • Pollution threat to environmental media (i.e. air, land and water); • Damage and disturbance to nationally and internationally protected sites and wider biodiversity; and • Damage and disturbance to nationally protected sites/features of historic or archaelogical interest. Suitable mitigation measures must be outlined.	Not applicable.	
Maintenance	Where maintenance responsibility lies with the developer they must: • Submit proposed maintenance schedules (routine and non-routine); • Submit proposals for maintaining records of works undertaken; and • Submit details of third party contractors to be employed.	Not applicable.	

Sheet C: Assessment Criteria for Alternative Schemes

Where alternative schemes are proposed, this table should be copied and completed as appropriate.

Basis for Conditions and/or Agreements

Instructions on Use

10.17 To be used by the Local Planning Authority when assessing initial design proposals as submitted by the developer.

10.18 It may be appropriate to apply conditions or reach agreement on several factors in relation to the development and this tool is a platform for negotiating suitable solutions to arrangements for:

> Financial Contributions;
> Infrastructure and Land Provision;
> Location Issues; and
> Infrastructure ownership and maintenance.

10.19 In Peterborough the basis for conditions and/or agreement should be applied in conjunction with the Peterborough Planning Obligations Scheme.

Informing the Developer

10.20 Any conditions should be imposed or an agreement negotiated in accordance with standard planning procedures and mechanisms.

Waste Storage Containers (Paragraphs 4.3 – 4.13 of the Design Guide)		
Finance and/or Infrastructure	Sufficient space for waste containers as outlined in Part 4 of the RECAP Design Guide.	All new developments within Cambridgeshire and Peterborough with a residential element.
	Finance will be provided by the developer sufficient to allow for the provision of appropriate waste storage containers by the local authority.	
	Provision of appropriate waste storage containers shall be made by the developer sufficient to meet the needs of the development	
Household Recycling Centres (Paragraphs 8.7 – 8.19 of the Design Guide)		
Finance	Finance will be provided by the developer sufficient to allow the upgrade of existing facilities or the creation of new facilities.	All new developments within Cambridgeshire with a residential element or consistent with the requirements of the Peterborough City Planning Obligations Implementation Scheme. Type of contribution will be proportionate to the scale of development proposed and based (in part) upon assessment of existing Household Recycling Centres.
Land*	An area of land/areas of land that will be provided by the developer (at no cost to the Local Planning Authority or Waste Planning Authority) sufficient in size to allow the creation of new facilities at strategic locations.	
Bring sites (Paragraphs 9.5 – 9.8 of the Design Guide)		
Finance	Finance will be provided by the developer sufficient to allow the upgrade of existing facilities or the creation of new facilities.	All new developments within Cambridgeshire with a residential element or consistent with the requirements of the Peterborough City Planning Obligations Implementation Scheme. Type of contribution will be proportionate to the scale of the development proposed as set out in the standard for new Bring Sites and based (in part) upon assessment of impact upon existing Bring Sites.
Infrastructure	Infrastructure suitable for the creation of both temporary and permanent Bring Sites (as appropriate) will be provided by and installed by the developer. In the case of temporary facilities, the developer shall also be responsible for removal of infrastructure at the appropriate time and then developing the land in a manner that is either consistent with its wider development as agreed with the Local Planning Authority or in accordance with Local Planning Authority specifications.	All new developments within Cambridgeshire with a residential element or consistent with the requirements of the Peterborough City Planning Obligations Implementation Scheme. Type of contribution will be proportionate to the scale of development proposed as set out in the standard for new Bring Sites and based (in part) upon assessment of impact upon existing Bring Sites.
Land	An area of land/areas of land that will be provided by the developer (at no cost to the Local Planning Authority or Waste Planning Authority) sufficient in size to allow the creation of new facilities.	All new developments within Cambridgeshire with a residential element or consistent with the requirements of the Peterborough City Planning Obligations Implementation Scheme. Type of contribution will be proportionate to the scale of development proposed as set out in the standard for new Bring Sites and based (in part) upon assessment of impact upon existing Bring Sites.

Table 10.5 Basis for Conditions and/or Agreements

* The location of a Recycling Centre must meet the needs of the Mineral and Waste Local Development Framework and Waste Disposal Authority.

Factor	Basis For Condition or Agreement	Applicable to?
Bring sites (Paragraphs 9.5 – 9.8 of the Design Guide)		
Location	Suitable locations shall be provided for the provision of both temporary and/or permanent Bring Sites so as to be easily and conveniently accessible to site users and service vehicles. Such locations shall be identified in consultation with the Local Planning Authority.	All new developments within Cambridgeshire with a residential element or consistent with the requirements of the Peterborough City Planning Obligations Implementation Scheme. Type of contribution will be proportionate to the scale of development proposed as set out in the standard for new Bring Sites and based (in part) upon assessment of impact upon existing Bring Sites.
Ownership	Land and infrastructure ownership shall be retained by the developer until such time as the developer has demonstrated to the satisfaction of the Local Planning Authority that adequate arrangements governing future ownership are in place.	All new developments within Cambridgeshire with a residential element or consistent with the requirements of the Peterborough City Planning Obligations Implementation Scheme. Type of contribution will be proportionate to the scale of development proposed as set out in the Standard for new Bring Sites and based (in part) upon assessment of impact upon existing Bring Sites.
Management & Maintenance	The developer should make adequate arrangements for the management and maintenance of all temporary facilities. The developer should demonstrate to the satisfaction of the Local Planning Authority that adequate arrangements are in place for the future management and maintenance of all permanent facilities	All new developments within Cambridgeshire with a residential element or consistent with the requirements of the Peterborough City Planning Obligations Implementation Scheme. Type of contribution will be proportionate to the scale of development proposed as set out in the standard for new Bring Sites and based (in part) upon assessment of impact upon existing Bring Sites.

Table 10.5 Basis for Conditions and/or Agreements

APPENDIX C
INDICATIVE COMPOSITE LAYOUT PLAN (FOR REFERENCE PURPOSES ONLY)


FP 13/42
Protected Road Corridor
Protected Road Corridor
Emmie Street
Emmie Street
Emmie Street
SHARED SURFACE
SHARED SURFACE
SHARED SURFACE

APPENDIX D
BRE WASTE BENCHMARK DATA

BRE Waste Benchmark Data

Issued 23rd November 2016

Background to benchmark data

The benchmarks shown in this document are derived from data from completed projects on the SMARTWaste Plan.

The benchmarks are based on completed *new build* construction projects. The benchmarks are also based on the construction phase only and do not included demolition, excavation or groundworks waste, i.e. waste entered on SMARTWaste Plan that arises from groundworks or excavation and all soil waste has been excluded. Benchmarks for refurbishment and demolition projects will be developed in the future as more of these projects are completed.

Data obtained from completed projects was subject to a number of logical and statistical tests, to ensure that the data used to produce the performance indicators (KPI) is valid.

Projects reporting waste arisings in volume

For projects reporting waste arisings in volume, all projects that meet the following criteria were selected for initial analysis.

- The floor area must be greater than 1 m^2
- The waste volume must be more than 1 m^3
- The project value must be greater than £1.

The performance indicators of m3 waste per 100 m2 floor area and m3 waste per £100k project value were calculated for these projects based on actual volumes of waste arisings. For new build construction projects, the distribution of these two performance indicators was found to be not normal with a very large range. Therefore, in order to try and exclude projects that had very low or very high performance indicators which might not be reliable, it was decided that only projects with high performance indicators that fall between the 5th percentile and the 95th percentile would be used for further analysis.

Projects reporting waste arisings in tonnes

For projects reporting waste arisings in tonnes, all projects that meet the following criteria were selected for initial analysis.

- The floor area must be greater than 1 m^2
- The waste arising must be more than 1 tonne
- The project value must be greater than £1.

The performance indicators of tonnes waste per 100 m2 floor area and tonnes waste per £100k project value were calculated for these projects based on tonnes of waste arisings.

For new build construction projects, the distribution of these two performance indicators was found to be not normal with a very large range. Therefore, in order to try and exclude projects that had very low or very high performance indicators which might not be reliable, it was decided that only projects with performance indicators that fall between the 5th percentile and the 95th percentile would be used for further analysis.

For projects that passed these logical tests, a count of the number of plausible results, the average, standard deviation and median of the results was obtained. This data analysis is carried out every three months and the results are published in this document which is available to SMARTWaste members by emailing smartwaste@bre.co.uk.

The benchmarks shown in this document are as follows:

- Table 1 shows the average m3 of waste per 100 m2 of floor area and the average m3 of waste per £100k of project value for different project types. The number of projects used to calculate the benchmarks is also shown.
- Table 2 shows the average tonnes of waste per 100 m^2 of floor area and the average tonnes of waste per £100k of project value for different project types. The number of projects used to calculate the benchmarks is also shown.
- Table 3 shows the average m3 of waste per 100m^2 of floor area for each waste product for the different project types.
- Table 4 shows the average tonnes of waste per 100m^2 of floor area for each waste product for the different project types.
- Table 5 shows the average m^3 of waste per £100k of project value for each waste product for the different project types.
- Table 6 shows the average tonnes of waste per £100k of project value for each waste product for the different project types.

BRE SMARTWASTE

Table 1: Waste Benchmark Data by Project Type
(New Build Only, Volume projects, Projects completed by end August 2016)

Project Type	Number of projects data relates to	Average $m^3/100m^2$	Number of projects data relates to	Average $m^3/£100K$
Residential	1472	18.8	1444	12.5
Public Buildings	107	24.8	110	10.8
Leisure	165	16.3	160	9.8
Industrial Buildings	113	13.7	121	9.3
Healthcare	169	18.4	167	9.1
Education	583	21.0	592	10.2
Commercial Other	19	16.0	20	9.6
Commercial Offices	123	18.0	118	8.8
Commercial Retail	195	20.2	200	13.4
Total number of projects	2946		2932	

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Table 2: Waste Benchmark Data by Project Type

(New Build Only, Tonnage projects, Projects completed by end August 2016)

Project Type	Number of projects data relates to	Average Tonnes/100m²	Number of projects data relates to	Average Tonnes/£100K
Residential	593	15.2	590	12.8
Public Buildings	38	14.5	40	9.4
Leisure	59	15.1	55	10.1
Industrial Buildings	64	13.2	63	7.5
Healthcare	73	13.2	71	8.7
Education	167	14.9	163	8.7
Commercial Other	8	22.6	7	7.2
Commercial Offices	55	13.1	51	7.7
Commercial Retail	232	11.0	261	8.5
Total number of projects	1289		1301	

RSK GEOSCIENCES

BRE SMARTWASTE

Table 3: Waste Benchmark Data - $m^3/100m^2$ by product for different project types

(New Build Only, Volume projects, Projects completed by end August 2016)

Description	Commercial Retail	Commercial Office	Commercial Other	Education	Healthcare	Industrial Buildings	Leisure	Public Buildings	Residential
Bricks	0.718	0.511	0.404	1.011	0.931	0.377	0.788	1.143	1.257
Tiles and Ceramics	0.122	0.040	0.107	0.051	0.050	0.011	0.108	0.140	0.118
Concrete	2.258	1.070	0.658	1.086	1.283	1.782	0.854	1.598	1.477
Inert	1.348	1.662	3.500	2.279	1.513	2.147	1.393	3.532	3.111
Insulation materials	0.314	0.561	0.516	0.651	0.718	0.326	0.455	0.644	0.553
Metals	1.379	0.616	0.990	0.842	0.729	0.737	0.431	1.357	0.328
Packaging materials	1.351	2.181	2.085	1.863	2.264	1.041	1.861	1.995	1.550
Plasterboard / Gypsum	0.592	0.771	0.748	0.929	1.342	0.379	0.899	0.844	1.237
Binders	0.036	0.052	0.022	0.052	0.109	0.022	0.107	0.055	0.089
Plastic	0.460	0.526	0.482	0.538	0.690	0.227	0.429	0.783	0.653
Timber	1.961	2.233	2.171	2.701	2.833	1.451	2.751	3.324	2.492
Floor coverings (soft)	0.031	0.021	0.016	0.075	0.079	0.012	0.075	0.062	0.054
Electrical and electronic equipment	0.073	0.018	0.054	0.036	0.051	0.010	0.029	0.039	0.041
Furniture	0.066	0.002	0.001	0.018	0.016	0.004	0.011	0.036	0.011
Canteen/Office/Adhoc waste	0.493	3.020	0.778	0.776	0.794	0.541	0.524	0.861	0.549
Liquids	0.067	0.009	0.000	0.034	0.015	0.043	0.076	0.061	0.040
Oils	0.002	0.000	0.004	0.005	0.000	0.000	0.000	0.109	0.002
Bituminous mixtures	0.547	0.144	0.229	0.656	0.233	0.626	0.322	0.235	0.139
Hazardous waste	0.192	0.554	0.174	0.207	0.176	0.234	0.039	0.420	0.129
Other waste	0.740	0.313	0.294	0.663	0.561	0.793	0.857	0.861	0.726
Mixed construction and/or demolition waste	7.406	3.709	2.751	6.556	4.003	2.948	4.304	6.683	4.278
Total (ex soils)	20.16	18.01	15.98	21.03	18.39	13.71	16.31	24.78	18.84

Key: $m^3/100\ m^2$ - volume of waste in m^3 / 100 m^2 of floor area

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Table 5: Waste Benchmark Data - m^3/£100K by product for different project types

(New Build Only, Volume projects, Projects completed by end August 2016)

Description	Commercial Retail	Commercial Offices	Commercial Other	Education	Healthcare	Industrial Buildings	Leisure	Public Buildings	Residential
Bricks	0.631	0.305	0.177	0.497	0.449	0.320	0.482	0.545	0.833
Tiles and Ceramics	0.074	0.023	0.021	0.027	0.029	0.002	0.060	0.080	0.075
Concrete	1.662	0.585	1.043	0.621	0.653	1.075	0.558	0.615	0.914
Inert	0.846	1.167	1.850	1.267	1.054	1.612	1.186	1.556	1.864
Insulation materials	0.179	0.294	0.190	0.299	0.298	0.238	0.262	0.254	0.375
Metals	0.991	0.275	0.448	0.412	0.316	0.423	0.256	0.458	0.214
Packaging materials	1.062	1.170	1.056	0.851	1.028	0.750	1.048	0.849	1.069
Plasterboard / Gypsum	0.560	0.427	0.173	0.421	0.601	0.224	0.581	0.359	0.800
Binders	0.028	0.028	0.023	0.025	0.060	0.012	0.081	0.025	0.063
Plastic (excluding packaging waste)	0.327	0.255	0.187	0.244	0.333	0.191	0.242	0.300	0.457
Timber	1.423	1.184	0.983	1.255	1.302	0.979	1.660	1.341	1.708
Floor coverings (soft)	0.026	0.009	0.021	0.034	0.038	0.009	0.052	0.035	0.036
Electrical and electronic equipment	0.042	0.011	0.003	0.015	0.024	0.005	0.017	0.030	0.028
Furniture	0.039	0.001	0.001	0.010	0.006	0.002	0.010	0.019	0.006
Canteen/Office/Adhoc waste	0.330	0.315	0.390	0.341	0.373	0.354	0.332	0.354	0.368
Liquids	0.017	0.006	0.000	0.010	0.010	0.224	0.038	0.024	0.029
Oils	0.006	0.000	0.008	0.002	0.000	0.000	0.000	0.015	0.002
Bituminous mixtures	0.443	0.089	0.238	0.287	0.131	0.367	0.138	0.134	0.080
Hazardous waste	0.204	0.217	0.079	0.120	0.061	0.250	0.025	0.162	0.085
Other waste	0.401	0.174	0.137	0.300	0.324	0.414	0.522	0.662	0.497
Mixed construction and/or demolition waste	4.155	2.256	2.544	3.169	2.009	1.889	2.219	2.969	2.944
Total (ex soils)	13.44	8.79	9.57	10.21	9.10	9.34	9.77	10.78	12.45

Key: **m^3/£100K -** volume of waste in m^3 / £100K of project value

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BRE SMARTWASTE

Table 6: Waste Benchmark Data - tonnes/£100K by product for different project types

(New Build Only, Tonnage projects, Projects completed by end August 2016)

Description	Commercial Retail	Commercial Office	Commercial Other	Education	Healthcare	Industrial Buildings	Leisure	Public Buildings	Residential
Bricks	0.118	0.496	0.083	0.623	0.691	0.294	0.423	0.435	1.143
Tiles and Ceramics	0.013	0.005	0.000	0.099	0.026	0.002	0.012	0.002	0.076
Concrete	1.197	2.325	2.476	0.518	0.614	0.188	0.942	0.849	1.321
Inert	1.912	1.741	2.928	2.474	1.459	2.074	5.034	4.673	4.219
Insulation materials	0.019	0.063	0.002	0.062	0.105	0.004	0.024	0.097	0.059
Metals	0.272	0.096	0.073	0.161	0.114	0.662	0.090	0.095	0.185
Packaging materials	0.099	0.102	0.071	0.194	0.455	0.139	0.153	0.115	0.429
Plasterboard / Gypsum	0.083	0.151	0.028	0.270	0.427	0.133	0.203	0.170	0.382
Binders	0.010	0.005	0.000	0.005	0.009	0.003	0.013	0.002	0.024
Plastic (excluding packaging waste)	0.051	0.064	0.076	0.100	0.160	0.043	0.096	0.101	0.256
Timber	0.254	0.298	0.293	0.499	0.746	1.056	0.747	0.412	1.441
Floor coverings (soft)	0.003	0.005	0.000	0.012	0.014	0.000	0.011	0.002	0.008
Electrical and electronic equipment	0.003	0.001	0.000	0.002	0.018	0.000	0.011	0.001	0.007
Furniture	0.000	0.000	0.000	0.000	0.003	0.000	0.001	0.003	0.001
Canteen/Office/Adhoc waste	0.051	0.025	0.051	0.119	0.172	0.150	0.068	0.226	0.089
Liquids	0.027	0.116	0.000	0.001	0.000	0.000	0.000	0.000	0.005
Oils	0.002	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000
Bituminous mixtures	0.087	0.053	0.213	0.650	0.132	0.063	0.235	0.000	0.070
Hazardous waste	0.035	0.009	0.000	0.100	0.541	0.027	0.001	0.044	0.071
Other waste	0.083	0.186	0.143	0.268	1.745	0.876	0.420	0.199	0.321
Mixed construction and/or demolition waste	4.164	1.908	0.747	2.494	1.260	1.737	1.599	1.989	2.644
Total (ex soils)	8.48	7.65	7.18	8.65	8.69	7.45	10.09	9.41	12.75

Key: tonnes/£100K - weight of waste in tonnes / £100K of project value

APPENDIX E
SITE WASTE MATRIX

Company providing waste disposal	Waste	Destination of Waste					
	Waste Type and European Waste Catalogue Code (EWC)	**Person Responsible for Disposal (e.g. Site Mgr, contractor waste champion)**	**Name of Waste Carrier**	**Waste Carrier's Licence No. and expiry date**	**Disposal Site Name and Address**	**Type of site (e.g. Landfill, Transfer Station or Exempt Site)**	**Environmental Permit (previously known as waste management license WML) Exemption Cert. No. (& expiry date) or Env Permit No. or PPC Permit No.**
If the information on the Waste Transfer Note does not match this matrix, contact the Project Surveyor, *immediately* on 01604 684400							
****Example** Woodford Recycling**	***Example** Gypsum based 18.07.02*	**Example** Mark Aulsberry	**Example** Woodford Recycling	**Example* CBDU99260 ex 25th April 2022	**Example** Woodford Recycling Station Road Warboys PE28 2TX	**Example** Transfer Station	**Example** 70256

Company providing waste disposal	Waste	Destination of Waste					
	Waste Type and European Waste Catalogue Code (EWC)	Person Responsible for Disposal (e.g. Site Mgr, contractor waste champion)	Name of Waste Carrier	Waste Carrier's Licence No. and expiry date	Disposal Site Name and Address	Type of site (e.g. Landfill, Transfer Station or Exempt Site)	Environmental Permit (previously known as waste management license WML) Exemption Cert. No. (& expiry date) or Env Permit No. or PPC Permit No.

APPENDIX F
BLOOR HOMES MATERIAL/SOIL MOVEMENT CHECKLIST

(1) Appendix 1

#STAYALERT//STAYSAFE

BLOOR HOMES

MATERIAL / SOIL MOVEMENT CHECKLIST

Section 1: Project Site Details	
Site Name:	
Date/Period Of Material/Soil Movement:	
Materials to be moved:	

CONSIDERATIONS PRIOR TO COMMENCEMENT OF WORKS

Hierarchy of Controls (please circle):

Option 1 A segregated turning circle for vehicles to remove reversing
Option 2 A segregated vehicle only zone
Option 3 If Option 1 or 2 are impractical the use of a Traffic Marshall must be considered, but only as a last resort

Section 2: Checklist	YES	NO	COMMENTS
Environmental control measures in place including relevant waste facility permits and waste carriers licenses for the contractors involved in the operation. EWC codes identified?			
Contractor to provide Specific Material / Soil Movement Method Statement			
Traffic Management plan – specific for this material/soil movement			
Traffic Marshalls to be used where no other options are available – Competent – Evidence provided. Refer to Hierarchy of Controls above			
If gateman/traffic marshals are required, do they require hand-held communication devices?			
Any Restrictions e.g. adjacent to a school, overhead cables			
A copy of Traffic Management Plan and RAMS have been forwarded to the authorised Haulage company			
Written response from Haulage company that they have received the plan and cascaded to relevant operatives/drivers			
Ground Workers daily briefing should include the muck shift operation			
All Site Operatives informed of the material/soil movement activity *(options include - toolbox talks, hazard board, signing in point)*			
Letter drop to residents (if route is through occupied area)			
Hazard signage displayed at prominent points e.g. front entrances			

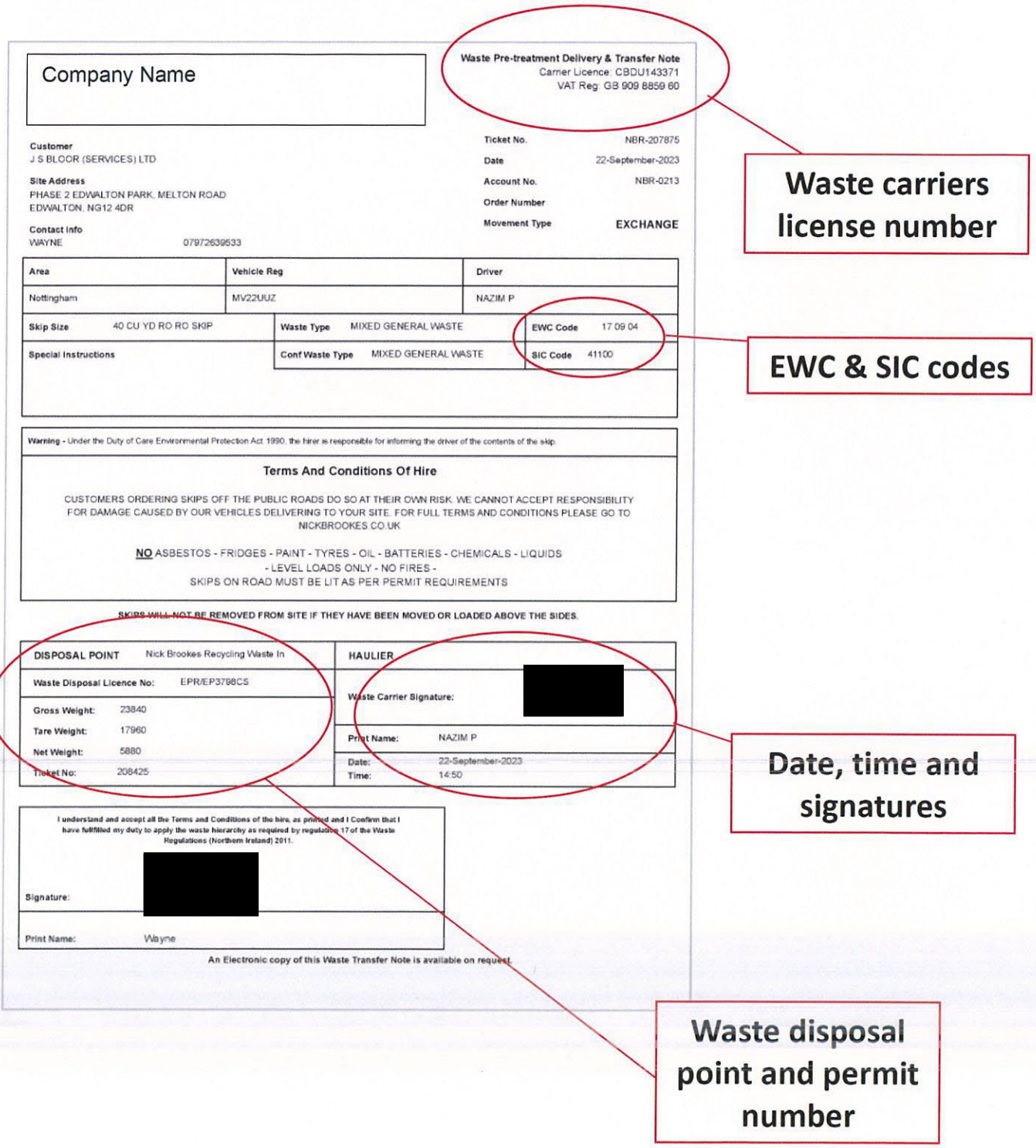
Section 3: Material / Soil Movement Sign off			
Contracts Manager:		Date:	
Site Manager:		Date:	
Groundworks Contracts Manager:		Date:	
Groundworks Supervisor:		Date:	

(2) APPENDIX 1

#STAYALERT//STAYSAFE

BLOOR HOMES

Example of information that needs to be recorded on waste transfer notes:



Company Name

Waste Pre-treatment Delivery & Transfer Note
Carrier Licence: CBDU143371
VAT Reg: GB 909 8859 60

Customer
J S BLOOR (SERVICES) LTD

Site Address
PHASE 2 EDWALTON PARK, MELTON ROAD
EDWALTON, NG12 4DR

Contact Info
WAYNE 07972639533

Ticket No. NBR-207875
Date 22-September-2023
Account No. NBR-0213
Order Number
Movement Type EXCHANGE

Area	Vehicle Reg	Driver
Nottingham	MV22UUZ	NAZIM P

Skip Size 40 CU YD RO RO SKIP	Waste Type MIXED GENERAL WASTE	EWC Code 17 09 04
Special Instructions	Conf Waste Type MIXED GENERAL WASTE	SIC Code 41100

Warning - Under the Duty of Care Environmental Protection Act 1990, the hirer is responsible for informing the driver of the contents of the skip.

Terms And Conditions Of Hire

CUSTOMERS ORDERING SKIPS OFF THE PUBLIC ROADS DO SO AT THEIR OWN RISK. WE CANNOT ACCEPT RESPONSIBILITY FOR DAMAGE CAUSED BY OUR VEHICLES DELIVERING TO YOUR SITE. FOR FULL TERMS AND CONDITIONS PLEASE GO TO NICKBROOKES.CO.UK

NO ASBESTOS - FRIDGES - PAINT - TYRES - OIL - BATTERIES - CHEMICALS - LIQUIDS
- LEVEL LOADS ONLY - NO FIRES -
SKIPS ON ROAD MUST BE LIT AS PER PERMIT REQUIREMENTS

SKIPS WILL NOT BE REMOVED FROM SITE IF THEY HAVE BEEN MOVED OR LOADED ABOVE THE SIDES.

DISPOSAL POINT Nick Brookes Recycling Waste In	HAULIER
Waste Disposal Licence No: EPR/EP3798CS	Waste Carrier Signature: [redacted]
Gross Weight: 23840	Print Name: NAZIM P
Tare Weight: 17960	Date: 22-September-2023
Net Weight: 5880	Time: 14:50
Ticket No: 208425	

I understand and accept all the Terms and Conditions of the hire, as printed and I Confirm that I have fulfilled my duty to apply the waste hierarchy as required by regulation 17 of the Waste Regulations (Northern Ireland) 2011.

Signature: [redacted]

Print Name: Wayne

An Electronic copy of this Waste Transfer Note is available on request.

Waste carriers license number

EWC & SIC codes

Date, time and signatures

Waste disposal point and permit number

APPENDIX G
BLOOR HOMES MONTHLY ENVIRONMENTAL CHECKLIST

(1) APPENDIX 2

#STAYALERT//STAYSAFE

BLOOR HOMES

Environmental Checklist

Region:		**Site Manager:**	
Site:		**Date:**	

FUEL STORAGE		**Yes**	**No**	**N/A**
1.1	Have Bloor Homes & Ground Works contractors diesel tanks been sited at least 10m away from watercourses			
1.2	Are the tanks free from damage and evidence of leaking			
1.3	Are the tanks set up on hard standing			
1.4	Are the secondary containment bunds free of fuel			
1.5	Spill kits available and in a suitable condition			
SILT & POLLUTION MANAGEMENT		**Yes**	**No**	**N/A**
2.1	Are gulley protection measures in place within on active construction routes			
2.2	Are arrangements in place to control mud on the road			
2.3	Are silt mitigation measures in place at the storm outfall – **ATTACH PHOTOGRAPHS**			
2.4	Are topsoil/spoil mounds positioned away from the storm outfall and any water courses present			
2.5	Are arrangements in place for concrete washout			
2.6	Is the mortar silo area clear of cement run-off			
2.7	Do sweeper pit arrangements match those detailed in the Bloor Homes guidance			
2.8	Is the foul pumping station functioning correctly			
WASTE MANAGEMENT		**Yes**	**No**	**N/A**
3.1	Are segregated skips in place with signage identifying the waste stream.			
3.2	Is there evidence of waste contamination			
3.3	Are arrangements available to dispose of hazardous waste streams			
3.4	Does the waste matrix list all of the waste streams being generated on site along with the correct codes, license and permit numbers			
3.5	Are waste transfer notes (2 years) and hazardous waste consignment notes (3 years) available to reference			
3.6	Are waste management arrangements in place for muck-shift operations and road sweeper arisings			

(2) APPENDIX 2

PLANT & WILDLIFE PROTECTION		Yes	No	N/A
4.1	Are control measures in place to comply with any tree protection orders present on site.			
4.2	Are specific arrangements for wildlife protection in place (badger sets, bat roosts, nesting birds, door mice, newts)			
4.3	Are arrangements in place to segregate any invasive plant species (Japanese knotweed, giant hogweed, Himalayan balsam)			

The Site Waste Management Plan can be located:
My Apps > In House > Region > Site > Site Wide Information > Environmental

Any environmental incidents must be reported to your Line Manager or Construction Director in the first instance, at the earliest opportunity.

COMMENTS & ACTIONS REQUIRED
Site Specific Hazards (*Please refer to CEMP and CPP*):
Comments / Actions:

Once completed, this form should be uploaded to:
Site Forms App > Monthly Forms > Environmental Checklist